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VOLUME XXXII.

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VIRES VITALES SUSTINETE

TRANSACTIONS

OF THE

National Eclectic Medical Association

OF THE

UNITED STATES OF AMERICA

For the Year ending June 14, 1904.

Including the Proceedings of the Thirty-fourth Annual Meeting held at St. Louis, Missouri, June, 1904, together with the

Addresses, Reports, Papers and Essays

Presented Before the Association, and Before the Several Sections in their Sittings.

Edited by FINLEY ELLINGWOOD, M. D., *Secretary*, CHICAGO.

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PART I.

ADDRESSES.

THE ADDRESS OF THE PRESIDENT.

ROLLA L. THOMAS, M. D., CINCINNATI, OHIO.

Ladies and Gentlemen, members of the National Eclectic Medical Association.—It affords me great pleasure to greet you in this magnificent city, which this year is giving such a royal welcome, not only to every son and daughter of the Republic, but also to the people from every part of the inhabitable world. There are gathered here the products of the best thought of the nations, and it is therefore peculiarly appropriate, that as medical men, we should meet here this year and add our quota of knowledge to that of the nations of the earth.

A retrospect of the United States during the years since the Louisiana purchase, shows progress beyond the wildest dreams of the Statesmen of 100 years ago. Then an infant Republic, today a World power.

For centuries humanity had been oppressed by the despotism of the world's potentates, but God in his own time put it into the hearts of a chosen people to found a new nation in a new world, out of which has grown this magnificent Republic. Liberty presided at her birth; and in her first declaration, "All men are created equal and endowed with certain inalienable rights,"

lies one of the secrets of her matchless development. Catching the spirit of the times, a few medical men determined to break away from the despotism of the medical world and give to the people a safe and kindly medication. Founded on the truth, that disease, wherever, met and in whatever form manifested, lowers the patient's power to live, they therefore taught that every remedy or method that depresses or lowers vitality, should be discarded.

With this axiomatic truth as a foundation, the new system grew, despite the abuse and persecution heaped upon its followers, and today it is practiced in every state in the Union and is implanted in other lands.

The new school taught that the sick should be treated kindly, that remedies should conserve the vital force and assist nature in restoring the weakened body. They fought the harsh medication prevailing at that time and there naturally arose a bitter antagonism between the old and new schools of medicine, and for years this fight was hard and bitter, but with the lapse of years men grew wiser, they found that the force expended in fighting each other could be better expended in fighting disease; they began to understand that, though differing in methods, each was seeking the same object, the restoration of the sick.

As the schools grew older, they grew more liberal; the so-called regular dropped the term quack as applied to all physicians not of his school and the adherents of the new school ceased their invectives against their former rivals, and each realized that the other possessed that which was of value to mankind. The bitterness that once existed between the various schools is fast disappearing and we trust the time is not far distant when none but the most friendly relations shall exist between physicians of all schools.

There has been an effort in recent years to unite all schools into one, and some honestly believe that such a union would be for the best interests of medicine and humanity.

The action of the dominant school, whereby the code of ethics of the American Medical Association, was recently changed, so that a so-called irregular might become a member of their Association, might lead one to believe that the time was propitious for a union of all Schools. A close student, however, sees in this action, not a desire on the part of the dominant school to advance the cause of medicine, but a shrewd move to absorb

the other schools. In changing the code so as to admit the so-called irregulars, they require such concessions on the part of the adherents of the other schools, that a merger of systems would be the greatest hinderance to the cause of medicine, that could possibly occur. The objectionable condition is the renouncing of our name and forswearing our allegiance to our school.

If the principles of Eclecticism are true, they must continue to be taught by Eclectics, and how can they be taught if we renounce our school. The earlier Eclectics believed that remedies from the vegetable world acted more kindly than those from the mineral world, and for seventy-five years they have worked along this line, giving to the world a Materia Medica, that to-day stands without an equal. The Homeopaths have done a great work in correcting abuses in medicine and have given valuable knowledge, in the study of symptomatology, while the Regulars have gone into their laboratories with their microscopes and given to the world valuable knowledge as to the etiology and pathology of disease, but little in the way of curing it.

Each school, working along entirely different lines, has done and is doing splendid work, and each has a mission to perform.

To unite all schools into one, would direct the work along one line to the neglect of other valuable fields, and the stimulating effect of friendly competition would be lacking. Let Eclecticism once lose her identity as a school, and the study of the therapeutic action of remedies for special conditions and the further development of our Materia Medica would practically cease, or be very greatly diminished.

There never was a period when Eclecticism was more needed than it is today. The old school is losing faith in medicine, and the heralded specific of to-day is the abandoned remedy of to-morrow. The path of the Regulars during the last twenty-five years lies strewn with the wrecks of their vaunted specifics. The Bergeon treatment for consumption, Brown Sequard's elixir of life and Koch's Tuberculin are a few of the many failures.

The animal extracts and serums are in the experimental stage, and already the rumblings of dissatisfaction with their results are being heard. Their leaders are advocating no medication in Typhoid fever, and Dr. Bevin of Chicago acknowledges that they cannot cure pneumonia.

With confidence gone as to the cure of disease, the world needs Eclecticism as it never needed it before, and the only way

that it can be successfully maintained, is by maintaining a separate existence.

Successful as she has been, prosperous as she is to-day and the only hope of a certainty in direct medication, yet I believe Eclecticism is facing a crisis in her history. Our peculiar success has made many of her children relax their efforts in their loyal support. Desiring recognition from the dominant school, they have become lukewarm in their allegiance and in many cases sent their students to regular colleges.

If Eclecticism is still to have a splendid future, if she is to accomplish her magnificent mission, there must be a revival of old-time allegiance to the school. We must so perfect our organization that Eclectics from ocean to ocean and from the lakes to the gulf, shall be identified in State and National Associations.

With an organized school nothing could stop her progress. The dawning of a new era lies just ahead, the full orb of which shall witness the practice of the future, Eclecticism or Specific Medication.

Now what shall we do to secure a general coöperation of the Eclectics in building up our National Association and promoting the best interests of the school?

First as to Eclecticism in general.

Every Eclectic should take some one of our Eclectic medical journals. To take a regular journal is all right and one to be encouraged, also a Homeopathic journal, but above all, be sure and take at least one of your school, and if possible take all.

Secondly, send your students to Eclectic colleges. They cannot learn Eclecticism from Old School Institutions. While a thorough knowledge of Bacteriology and microscopy may be better secured in an institution like John Hopkins University, The Jefferson Medical College of Philadelphia, The Chicago University or like institutions, the application of our splendid therapy in combating diseased conditions can only be secured in Eclectic Colleges. What disease-ridden humanity wants, is a system that will restore it to health. If Eclectic perceptors will send all their students to Eclectic colleges, it will not be long before every department of our schools will be as well equipped as the best in the land.

The fact that our graduates receive as high grades and in very many cases even higher than the graduates from the best old school colleges proves the superior work done in Eclectic

Medical institutions. Eclectics! Patronize your own schools and make them without a peer in the land.

As to our National Association.

1. Keep constantly before our physicians the object of the Association as set forth in the constitution, namely: "To maintain organized coöperation between physicians for the purpose of promoting the art and science of medicine and surgery and the dissemination of beneficial knowledge and an improved practice of medicine.

2. To reduce the annual dues so that they will not be a burden to any practitioner.

3. As far as possible, hold our meetings in turn in different sections of the country and if possible where pleasure may be combined with work.

4. To devote the first hour and a half of each session to business and the remaining time to section work.

5. To carry on three departments of section work at the same time, namely: Medicine, Surgery and the Specialties.

In closing I desire to thank the Association for the honor you have conferred upon me in electing me as your presiding officer. I have endeavored to give my best efforts toward the success of this meeting and trust that it shall be profitable to all. To my fellow officers and to those who have charge of sectional work, I desire to express my sincere thanks, for to your untiring efforts, very much of the success of this meeting is due.

ADDRESS OF WELCOME BY COL. MARTIN OF ST. LOUIS, AND THE RESPONSE BY DR. KING OF SARATOGA, N. Y.

Ladies and Gentlemen: Coming from the crowded and busy thoroughfares of the great metropolis of the Mississippi, I am proud that there has fallen to me the great honor of addressing the distinguished gentlemen and ladies present on this occasion. This is certainly a great pleasure; but to have the honor of representing the brainy, progressive mayor of this great city; to be delegated to extend to this Medical Association, a welcome, in behalf of the Mayor of the World's Fair city to-day, is a great honor indeed; and in his behalf, and in behalf of the hospitable

citizens of St. Louis, I extend to you all a most cordial welcome. We are proud of your presence. The citizens of this great city stand ever ready to extend the right hand of fellowship to every doctor's organization that is fashioned upon the principle of the Golden Rule, as this certainly is.

Over fifty springs have budded into summer; over fifty summers have blossomed into autumn; autumns have ripened into winter, since the great old pioneers of your profession opened the trail of medical associations, and the seed sown on this soil has continued to blossom, until today it is crowned with this fruitage from every state and territory in this grand Union. Its members are alleviating suffering, doing away with distress and pain, restoring life, bringing sunshine and happiness into darkened and desolate homes, and wiping away the shadow of death and the grave. I know of no institution in existence that is entitled to more consideration than the Medical Society. Your physicians stand ready night and day to respond with alacrity to the calls for aid, for assistance and for medical attention, and all ages of the world's history teach us that the medical man—the doctor—held the highest position in the gift of the people, the good-will of the community in all ages and in every clime. Your Association is well known. Its glorious record has been made, and the citizens of Missouri, this great commonwealth in which you are now located, honor the medical fraternity which you represent, as one of intelligence, and know that this Association is worthy of their esteem and consideration and should be encouraged.

My good friend, the worthy secretary of the Missouri society, rushed into my office a few moments ago and told me he had his automobile at the door, and he brought me out here in great haste. I was expected to prepare to make a speech to such an assemblage as this in about fifteen minutes in which we were riding through the thoroughfares of the city. The doctor advised me to speak on "glittering generalities."

You are here for the purpose, not only of deliberating and advising means and ways best to promote the interests of your society, but also to enjoy this great Fair. In order to do justice to this subject, it will be best for us to briefly go back to the days when a Catholic traveled from court to court in his effort to secure money and ships and funds to find a new world. We next find him with his sailors and ships, upon the great sea, tempests—

storms were raging—dangers upon every hand threatened, and one day a sailor cried, "Land, ho!" and the land was discovered, destined to become the land of the free and the home of the brave. Two hundred years later we find a band of exiles in their little ship, the Mayflower, sailing across the tempestuous sea, to find in this new world a home where they could worship God in their own way and lay the foundation for a government which has no equal on the face of the world. As Mrs. Hemans said,

"The breaking waves dashed high on a stern and rock-bound coast."

Coming on down through the incidents and trials which brought on the revolution, we pass briefly over the heroic and grand accomplishments of General Washington and his band of patriots, who for seven long years fought and suffered. Those glorious patriots! It is well we stop and speak words of praise for them. Coming on down the line through the Mexican war and our own civil war and the Spanish-American war, we find that in this active age, this age of progress, this age in which the ingenuity of man is taxed to keep pace with his own activity—we find that glorious old American banner still floats over the land. And this day is the American Flag day, the most glorious day we have had since the fair opened. That Star-spangled Banner will be the emblem for years and years until time has gone by, and no more forever upon the earth is found that patriotic devotion which history has shown in this land, wherever Old Glory floats, and offers liberty to every man, and woman and child forever.

I am proud indeed to see so many ladies in this gathering. Some medical societies believe that the ladies are out of place, but I want to say that in all ages of the world chivalry has yielded to women, their devotion and duty; and the National Eclectic Medical Association as well as the Missouri Society points with pride to the women who are with them today and are working with them side by side. God Almighty in his crowning work gave her to man, and her devotion to the heart of man, to the family, to the home and to duty in whatever line, is the noblest of all works.

I desire to say, we as Missourians, welcome you to the World's Fair. We want you to come to the World's Fair building, owned and occupied by Missouri. We will extend to you a Missouri welcome. We want you as a national organization to

come there and register, and when your names become famous hereafter—and many of you will become famous, we want to point to our record and say, "there is where he registered when he was growing." To you older men, because we recognize that without the aid and council of these older men, these younger men would not be offered the education which by your industry you made it possible for them to receive, we will point with pride. We Missourians are optimistic, and we have no use for the pessimists, and we want to extend to you the hand of good fellowship and make you believe you are part of our population, and make you feel like returning as soon as possible, to become a resident of this great city.

All this beautiful decoration here reminds me of old General Shields of Missouri, who has been U. S. senator from three states, a hero of two wars, a distinguished scholar and statesman, When a boy, in the Mexican war, the command had sustained an enormous loss and were advised to go back, and the line swayed and broke, and ran. Young Shields ran and grasped the colors, and said, "You may go back, but these colors will go forward," and forward they went, though he fell bleeding and wounded. Ladies and gentlemen, I am sure your beautiful colors, your high ideals, your earnest work will go ever forward.

RESPONSE BY DR. KING.

The President said: Dr. Johnson of Texas was to respond to this address, but he not being present, I have asked Dr. King of New York to take his place.

Dr. King said: Mr. President, Ladies and Gentlemen:

I do not know why a New York man was selected, unless it was to get one far enough away from Dr. Johnson not to quarrel. Just a few moments before this meeting I was informed that I was to take this part on the program. Dr. Boskowitz got me into the scrape, and having been a friend of his for some time, I knew the weight of his avoirdupois, and that he was not to be opposed. I feel that my effort will be but poor after the oratory we have just listened to, and I feel like the young man asked to respond to a toast, and he had carefully prepared a speech, and when called upon he said: "Before coming here, I had a carefully-prepared speech; it was known only to myself and God; now it is known only to God."

I have met before, men who came from Missouri, and I have always been anxious to come West and mingle with them. Although not a member of this society, I have kept track of its progress and meetings, and know what it has accomplished, and I am glad to be here representing the Eclectics of the East. I want to thank the gentleman who has just spoken for his cordial and hearty welcome, for his patriotic and optimistic welcome. We feel quite at home here. We are among friends, and a hearty handshake has been given us. I trust that we shall have a fine and successful meeting. I trust we shall all feel well repaid for having come to St. Louis at this time. We realize the difficulty of the committee in entertaining us with such a host of people here, and we shall do our part to make the burdens of the local committee as light as can be. Let us all do our part, and put our shoulders to the wheel and make the meeting a rousing success, and go back home feeling that we have enjoyed a social privilege, and an educational stimulus that will last us for years.

ADDRESS OF THE SECRETARY

Embodying the Secretary's Annual Report.

FINLEY ELLINGWOOD, M. D., CHICAGO, ILLINOIS.

The events of the passing year have followed each other in rapid succession, and have brought us again *in annual convention* to the time for another report from your Secretary.

My first sentiment is one of thankfulness. My first impulse is that of congratulation. I heartily congratulate you, ladies and gentlemen of this Association and the Eclectic Physicians of America upon the *very fortunate outlook* in Eclectic Medicine. Two years of effort toward unification; two years of energy by the officers and members of this Association in the lines of consolidation and coöperation, have brought marvelous results. But I congratulate you, above all, upon the *perfect harmony there is* in this Association, upon the entire absence of discord, jealousy, antagonism or any selfish desire for the advancement of *personal* interests. There are no cliques, there are "no divisions," no rings, no factions, all are united and all are working together for the advancement of the total best interests of our noble cause. That this spirit shall continue is my most sincere desire. We trust that

every effort will be adopted for its continuous spirit, as we *cannot fail* if it does continue. We must *each* be vigilantly upon the watch, for the first dissenting influence, for the first cause of contention, and quickly quell it.

In the accomplishment of the regular routine work of my office for this year the duties have not been burdensome. At the close of our session at Indianapolis, my health demanded rest. I was forced to lay my work aside for two months, and thus the volume of the Transactions was somewhat late in reaching you.

On the 28th of October, 1903, the Executive Committee met at the call of our President, Dr. Thomas, at the Southern Hotel in St. Louis to arrange the work for the coming year. At this meeting, among other important things, it was decided that a sixteen-page pamphlet should be edited and issued by the Secretary, in the form of a National Association Bulletin, at least twice before the opening of the 1904 Session, and that a copy of this Bulletin should be mailed to at least 5,000 Eclectics in the United States. In this pamphlet the officers were to address the profession upon these urgent matters before the Association, which vitally concerned the character and progress of Eclecticism, and to urge immediate and universal coöperation.

The first issue of this Bulletin was sent out about the middle of February, and the second issue the last of April. The reception of these was most cordial indeed. The responses received were united in the statement that the interest the Association was taking in the individual Eclectics outside, would result in great good. The second Bulletin contained an announcement of this meeting, but not a completed program, as it was impossible to get the matter for the complete program in until the last of May.

The influence of these Bulletins has been most salutary, and the large attendance at this session is due in great part to the advertisement it had from these Bulletins. It is the opinion of your Secretary that from $125 to $150 of the money of this Association could be spent in no better way than to send out such a Bulletin to 5,000 Eclectics occasionally during the *coming* year.

This Association last year instructed your Secretary to spend, in the work of personal visitation to other societies, and of organization, not to exceed $200. The best plans to adopt in this work were considered by the Executive Committee at the St. Louis meeting, and it was decided that the Secretary should visit new societies and societies where there was not such activity as

the number of Eclectics in the state would seem to warrant, or those that would profit the most by the encouragement this Association could give them.

By correspondence with the officers of the State Societies, an adjustment of dates for the holding of their meetings was made, by which your Secretary was enabled to visit eight societies in their sessions. I spent the entire time of the session with the Oklahoma, Kansas and Michigan Societies, and one day each with the South Dakota, Iowa, Illinois, Pennsylvania and West Virginia Societies. I had the very valuable assistance of Prof. Lloyd at the Oklahoma and Kansas meetings. The thanks of this Association is due to him for the personal interest he is taking, involving the expenditure of valuable time and money.

The Oklahoma Society was organized two years ago by its present enthusiastic secretary, Dr. E. G. Sharp. It was admitted to the list of auxiliary societies at the Milwaukee meeting, with the South Dakota Society, and the reorganized Kentucky and West Virginia Societies. There are forty-six Eclectics in the territory, 26 of these or about 57 per cent have *joined* the Society, and 23 of the 26, 90 per cent were present at the meeting in May at Oklahoma City, and *two* out of the three who were absent, sent letters of regret. If the Eclectics of every State in this Union would follow the example of the Oklahoma Society we would soon have an organization that could not be excelled. Fifty-seven per cent of our physicians in State Societies would make us as strong as any body of Doctors in the United States.

The Eclectic spirit in both Oklahoma and Indian Territories is excellent. There are no lukewarm ones and the cause will certainly advance there. A society was organized in the Indian Territory in April. Doctor Son, its Secretary, is here to ask for its recognition as an auxiliary Society.

The State of Kansas had a very excellent meeting, but a small attendance. The remarkable financial prosperity of our physicians in Kansas, I think, is to blame for the apparent inactivity of many of them in Society matters. They are nearly all financially independent, and their wealth has caused a paresis of energy into a certain extent in Society work.

In South Dakota the Oklahoma spirit was apparent. There are but few in the State and they are far apart, and transportation facilities are bad, but the meeting was well attended and the spirit was excellent. In Iowa, there is room for much enthusiastic effort.

The Michigan Society was much like the Iowa Society, and yet these States have some of our very best men in them and they have acquired a strong hand in administrative matters, and the cause should, and will in the near future, be strengthened thereby. In West Virginia, the Society held an excellent meeting. The attendance was larger than for years, and the work done was of excellent character. The outlook in that State is good. They have no grounds for discouragement.

The Pennsylvania Society is an old one and a strong one. The attendance was larger than usual. It is made up largely of enthusiastic energetic young men who have their faces set toward advancement and energetic coöperation. The meeting was certainly a fine one.

There is too much apathy in several of the States. A lukewarmness, an indifference that will ultimately be fatal to our interests if it were to be continued. But it will be overcome. Already this spirit is disappearing before the wave of enthusiasm and renewed zeal that is rapidly becoming conspicuous in all localities.

The attraction toward this St. Louis session of the National this year has detracted somewhat from the attendance on the State meetings, as many could not attend both the State and National, and they desired to be here. But the Spirit of Eclecticism is decidedly on the gain throughout the United States. Every State has felt the enthusiastic pulsations that have been throbbing through our vital energies, and are responding warmly. The work we have all done—has told 100 fold and must be continued. We must stir the individuals in every locality to the exercise of tremendous energy.

In other States the spirit of Eclecticism is all we could wish. The States of Georgia, Arkansas, and Tennessee, Indiana and Nebraska, have held large and enthusiastic meetings. The meetings of the Eastern States that have been reported, are very encouraging. Illinois held one of the largest meetings in its history, with 150 members. With the present officers, great advancement will be made this year. The Ohio and Texas meetings are yet to be held, but they promise well. Good reports come from the California meeting. The Northwestern States with Colorado, Nevada, Utah, New Mexico, and Arizona, as well as some of the Southern and Eastern States, need much attention from this Association.

If we persist in the interest we have taken in Eclecticism in those States where there are but few of our physicians; if we continue to urge those from those States where there is no State organization to join this Association, we will quickly see the results of our work by a greatly increased interest, and zeal for the cause.

In regard to consolidation and reorganization, I have the same to report to you as in my last report. There is a rapid consolidation effected by the Regulars, and persistent effort is being made by the leaders to disorganize us, but the mass of the *working men* in the profession is coming our way. They are seeking our truths and are determined to have them. I have called your attention to the fact, and you have seen for yourselves, that our Doctors have been misled and have been induced to join the regular societies. They are met in these societies with the most extreme indifference and are treated slightingly and neglectfully when once they have joined. They pay their dues there regularly and this money is used by those societies to still further disorganize and disrupt our School.

If we unite in compact and intimate cohesive organization now, many men from other schools will become a part of us. They have confidence in the truth from which our successes have come. This confidence will become fixed and permanent from their own successes. This Association must not delay the matter of determining upon some definite method of binding our men into a compact body. Some plan must be formulated and adopted at this session, and carried into immediate effect. Two years have gone by since we first began to see the necessity of this. And we have only advanced a little way, and yet it is advancement, and it is in the right lines. We must advance more rapidly in the next year. We must not delay from year to year.

I have in my mind a plan which I have evolved from the necessity which exists, for compact organization, which plan, or one of a similar general character, would, I think, be effective.

In regard to our relation as a school of physicians, to the other schools of medicine, and to the people, I am convinced that we must adopt a more aggressive course. We can and must now advance with our work right into the old school ranks. We must be persistently aggressive. We must bring our work directly and positively before them. Their leaders will not accept it. The old spirit of dogmatic intolerance will prevail, but the

mass of the profession will receive it with open arms. We must write our principles, and declare our truths, and publish this in their periodicals as Eclectic truths and get them to talking about them. If the editors denounce us that will give us essential and advantageous advertisement and will get the readers to thinking about us. If they ignore us, their readers will soon resent their conduct.

I believe in *a proselyting policy.* We must urge every medical student to adopt our methods and to acquire a knowledge of our principles. We have right principles. Let us force them upon the profession, and especially upon those just entering the profession. Let us secure editorials from every possible old school journal, approving of our methods of practice, and advising their adoption. Let the articles written on drugs and practice in these journals be discussed and criticised and our own principles added and compared. Let us even endeavor to bring our lecturers before their classes, in their colleges, to bring, in a dignified manner, our principles before their students. Let us have our superior remedies, and the fact that they are ours, constantly brought to their notice—and further—

We must at once elevate *this Association* to a position of dignity and importance that will carry a prestige with it, that will be of incalculable benefit to our every physician. This will enable the *school* to be recognized as an active force in professional polity in the United States—an element to be considered, to be consulted, to be estimated with, in professional matters of public or National importance.

We must improve our schools and our literature until no better exists. We must force recognition of our men by municipal and governmental authorities, until they fill the best positions and become conspicuous in dictating the policy which shall guide and govern the profession in matters which concern the health of the people of this Nation. We must interest the men of wealth in our school in the endowment of our colleges. This is important.

If we persist in taking a positive stand for our rights and for a recognition of our truths in a firm and dignified manner, our demands will win respect.

The dominant school has often created public sentiment which has forced us into adopting measures that we have not approved. For instance, they have perverted sentiment in favor of antitoxin in diphtheria until our physicians are obliged in some cases to

use it, when they feel positive they could do no better than they do without it, or lay themselves liable to legal inquiry. Let us bring the success of Eclectic methods so prominently before the people as to *create a public sentiment* through which the people *will demand* that *measures* be adopted *at once* by the profession at large, which will reduce the mortality in prevailing disease or which will the better conserve the health of the masses. All this is possible and essential. The necessity for this will justify us in even adopting the public press, I believe, as a medium of transmission of these facts to the people. It will not be difficult for us to show that a mortality of from 30 to 45 per cent in pneumonia and typhoid is due to *ignorance of correct methods,* and no longer because of the incurability of those diseases. It will not be difficult to prove that these and many other serious disorders can be prevented, aborted or jugulated by specific methods, and that there is no excuse, at this stage of advanced professional enlightenment for a physician to simply pilot a case through the dangers of a protracted illness, leaving the disease to take its own course, when the course can be materially abridged.

There is a tidal wave of sentiment coming our way that we must meet and breast and stand above as the authors and originators of the *cause* of it, carried on with it, to the complete and successful recognition of our claims to the promulgation of those truths which are now demanded.

We have declared these truths. We have proven them to be truths. They have stood the severest tests. The mass of theory of the conservatives has gone down. Under the searchlight of practical test, it has failed. Our work stands. It stands on the truth of its principles. We have brought these practical truths to light. Is this a little work? Is this an inferior work? I would rather be accredited with bringing to the light a single truth, a single plain, unvarnished, unpretentious, immortal truth, than to be accredited with evolving volumes of fiction in undemonstrable theory.

A massive wall of prejudice, higher and broader and as impenetrable as the old Chinese wall, has surrounded the profession of medicine. But this wall is giving away. The batteries of modern truth are causing it to crumble, and very soon as an obstacle to advancement it will be eliminated. Then all knowledge will be common knowledge, and truth from whatever source will

be accepted, so that human ails are abated and pain and suffering are subject to our will.

Ladies, gentlemen, all my friends, I thank you for the confidence you have reposed in me, and for the assistance and assurance of success and words of approval you have given me in the past year. From my heart, I thank you.

PART II

SECTION WORK

DEPARTMENT OF MEDICINE

In charge of J. A. McKlveen, M. D., Second Vice President.

SECTION OF MATERIA MEDICA AND THERAPEUTICS

SECTION OFFICERS

Chairman—H. W. Felter, M. D.

Secretary—H. T. Webster, M. D.

STRUCTURAL PLANT RELATIONSHIPS.

JOHN URI LLOYD, PH. D., PH. M., CINCINNATI, OHIO.

Their Record:—Among the earliest remedial agents, as well as the most useful remedies of the present, are plant products and plant agents. From the dawn of the study of medicine to the threshold of the 19th century, the most conspicuous of all remedies have been those formulated under the influence of vegetable life. The simples of the aborigines of all climes and lands, the remedies of domestic medicine, as well as those of empiricism past and present, the agents that science most values and most studies, have been and yet are plant structures. Every country of the globe contributes thereto. Every people of the earth partakes thereof. The Pharmacopœia of every country, the materia medica of all the schools in medicine past and present, give their best care to the remedial action of vegetable structures. These have ever been the established, the cherished remedies of all na-

tions, and are no more to be displaced by artificial preparations from outside, than are vegetable foods to be replaced by synthetics evolved by the chemist.

Let us not neglect to credit the value of inorganics in life conservation. No man will deny the value of minute amounts of sodium and potassium compounds, of chlorine salts, of earths, of minerals in foods. Nor will he, if he thinks, undervalue the rational use of such in medicine, where either alone, or as integral parts of plant structures, they serve well their part. But as no reflecting man will presume to restrict his foods wholly to these unorganized substances, so no balanced mind, informed concerning the record of remedial agents of the past, and their qualities at present, will deny the supremacy of vegetable *structures* as corrective agents in the hands of men qualified to use them intelligently.

The life of man and the health of man depend on the conservation of energy held in the life forces that are locked in vegetable structures, be they called food or remedy.*

Empiricism in Food and Remedy Studies:—As the natural foods of man are empirical (established by experimentation) so are the most useful plant remedies the result of empiricism. Lost in the past are the experiments that led man to know that wheat is a food, and the same is true of most fruits. The wanderings which give us our known foods and medicines are not less tortuous than the painful creeping of the human family from savagery into civilization. But they are more obscure, because in the main the journey commenced before man presumed to record any data whatever. It antedated the records of lost civilizations, and came down much after the manner in which a robin teaches its young to eat a worm. Who can tell the number of lives lost in the experimentation that finally led to the separating of the poison that exists in the tapioca plant from the wholesome starch food known as tapioca? Who knows the number of deaths preliminary to man's differentiating between the poisonous and the edible fungi, which is yet a problem, for in this field deaths often occur? The story of how the acrid arums came to be utilized by primitive people so as to become foods, or of the discovery

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Do not infer that the author overlooks or condemns *animal* foods. This paper will not permit a consideration of that phase but it may be briefly said that the use of animal food is but the utilizing of vital force that has been transferred to flesh from plants that the animal has eaten. Plant life is the great food storehouse of both carnivorous and herbivorous animals.

of the distinction between the edible fish and flesh, and forms of flesh and fish unwholesome, is as obscure as the experiments that led to the utilization of innocuous weeds as foods. Somewhere in Nature's climes all food plants are, or once were, weeds. To find their value as nutrients demands experiment which establishes some as useful, then *they* become known as foods. So recent comparatively, is the sad proving of the attempt to eat as a pot herb one of America's new plants, as to have fixed the term *Jamestown Weed* to the plant which the settlers of Virginia about Jamestown investigated to their sorrow and death. Man's search for food is a story still in process. There is yet a risk in some directions where persons uninformed partake of weeds that should be known as poisons. In England, the "sow-bread" or bryonia, claims each year its victims. The same is true of œnanthe crocata. The wild parsnip is often eaten in America for parsnip, and death results. The terribly poisonous amanita is mistaken for the wholesome mushroom. Whole families sometimes perish, no antidote is known. And yet the weeds of the field, the plants of the desert and the forest, unquestionably offer untold food opportunities to the human family. Let us not forget that the luscious apple came from a knotty, astringent wild fruit, that the mother of the potato grows yet as an insignificant wild tuber in Mexico, and that but a generation back the tomato was considered poisonous, and was cultivated merely as an ornamental plant.

Turn now to remedial plants. Who can even formulate the empirical wanderings that led to the discovery of the qualities of ipecac, nux vomica, opium, jalap, podophyllum, that are possessed of energies that may if illogically used make them poisons, or if discreetly employed, yield kindly remedial agents? Who can trace the more difficult study that led to the discovery of the insidious, valuable qualities of less harsh agents, such as baptisia, aletris, hydrastis, collinsonia, macrotys, and that last valuable discovery of the past decade, echinacea, which but a few years ago was known only as a worthless Western weed? Who will next serve humanity in this field, or who can predict the name of the plant next to unfold its qualities? All that have been introduced are as yet empirical gifts to man in the sense that all these natural corrective agents have been established experimentally. The good of those yet to come, must as surely be the result of empiricism. All that nourishes and conserves life, all that upbuilds structures and modifies the life current or prevents the abnormal

destruction of tissue, reasoning from analogy and from rational thought, has been the result of empirical gifts to mankind. The evolution was based on *experimentation* which leads to faith in that which has been evolved in the past mazes of a struggle for existence wherein as a rule no book record is preserved. The data of it all is lost.

The Natural Structure of Foods and Alteratives:—Among primitive lessons in food study is that of selection and differentiation between *parts* of natural bodies, be they vegetable or animal. Men do not eat the thorn of the cactus or the root of the mandrake, but the fruit or juice of the one, and the fruit of the other. They do not eat the husk of corn or the shell of the almond, but their kernels. This is a familiar fact, seemingly self-evident, but some time in the past it too had to be learned by experiment. The tuber of the potato is food, not its top. Phytolacca sprouts are excellent greens, but the root is an acrid irritant. The flesh of the fruit that encloses the deadly nux vomica seeds, much as an orange seed is imbedded in its pulp, is eaten freely. All this has experience taught, and were it not for the personal instruction each man gets from those already informed, would, in each case, have to be learned anew.

Empiricism teaches that the bark of the cinchona, the inspissated juice of the poppy capsule, the root of ipecac, the fruit of calabar, the dried juice of the catechu are remedial alteratives. They produce changes in organs or in structures by their influence on nerve current or on vitalized matter. They are natural plant structures, which experience has taught, as a crude whole, can influence or conserve life structures.

Empiricism Extended in the Direction of Medicine:—Let us pass the evolution which in foods is giving us new forms and combinations of old food-stuffs to serve the palate and the eye, and turn our attention to therapy. Basing his reasoning on observed facts, the thoughtful modern physician, aided by the pharmacist, draws yet finer lines. With his foot on the pedestal empiricism has reared in the use of plants as a whole, he adds thereto another mite. He differentiates between the giving of certain remedial structures for disease names and the giving of them for disease expressions which accompany abnormal conditions that have given rise to such disease names. He learns that even though a fever may be always reduced by aconite, as established by more superficial observation, it is not best to give aconite in

all expressions accompanied by fever. He learns that while cinchona is useful in "intermittents," it must be given only in certain stages of the affection. He learns that opium may be a friend or an enemy, dependent on symptoms, idiosyncrasies, and complications; that ipecac has two qualities, and when used in minute doses is useful in a direction that is the very antithesis of emesis, its first field. Such as this he learns by experimentation and observation, and such truths as this can be learned only by observation based on experimentation. He also discovers that given a proven symptomatic condition, unless there be some exceptional counteracting influence, a known remedy will produce specific effects. The method by which all this is determined is empirical; the ultimate, when established, is considered a phase of scientific art.

The Demand of Science:—But the fact soon becomes apparent that medication for well-known and well-established symptoms is hazardous if one depends on Nature's varying vegetable crudities. As the husk and shell of plants vary their proportions to other parts of the plant, under the influence of seasons, sunshine and showers, likewise do the proportions and relationships of the inter-cellular structures of certain parts of the plants used in medicine vary. The farmer knows that one season a field of grain may consist of much straw and little oats, while the next year the grain may be heavy and the stalk light. Nor are all plants in a crop uniform. The tree that bears the heaviest load of foliage may be barren of fruit. The most stately cinchona tree may be covered with worthless bark. A small chestnut tree, loaded with fruit, may be overshadowed by a mighty chestnut bearing foliage only. This empiricism teaches. And so empiricism or observation led to the first attempt to make more uniform preparations from the crude parts used in medicine. Came then the crude extracts both fluid and solid, the infusions and decoctions.

Finally, only one hundred years ago, morphine was discovered. Quick followed quinine, and then other bodies of a similar nature. Now entered a new thought. These energetic chemically-constructed ultimates seemed to indicate that behind every natural remedy lay a definite something that could replace in therapy the parent structure. This one-sided conception held the thought and experiment of many talented men for a hundred years, it locks many today in its tenacious embrace and which has been carried by some to irrational extremes. That it was a natural

line for enthusiasm to take is apparently supported by the aggressive energies of a few educts and products, such as the cathartic resins of jalap and podophyllum (which are in themselves complex structures) the energetic alkaloids, and a few other products which possess in themselves qualities to remind one of the parent structures. Thus it is that the conspicuous example, quinine and morphine nearly one hundred years ago, led to blanket theories (resinoids and alkaloids) which well-nigh wrecked the Eclectic school half a century later, and which now distract and pervert thought in the Regular school, until we observe that medical nihilism, too often the result of such medication, is fostered by continued disappointment in directions when *structures,* not *fragments,* dominate a drug.

The great mass of organic remedial agents has no one dominating definite structure capable of either isolation or of yielding, by chemical destruction, definite ultimates. In them the natural structures, without formula or equation, stand supreme in the face of the aggressive chemist, and both his constructive and destructive art. In the materia medica of intercullular structures, no one chemically-made fragment that can be broken out parallels the drug as a whole, if one knows the whole drug. Indeed, with the vast majority of valuable vegetable remedies, chemistry is inadequate to even *help* identify a drug through the reactions of any known quality possessed by either its chemically-made or chemically-isolated fragments. Scores of plant preparations that for half a century have been valued as remedies, may be mixed; and no chemist in the world can, by his art, identify any one drug of the mixture, or by means of a formula or equation or reaction, point to any therapeutical constituent present in the mixture. Inter-structural compounds exist, by their well-known *qualities* are they established in pharmacy and therapy, but a blank are they to the chemist's art.

The time of thousands of workers has been spent during the past century in the hope that a single thing picked out of a mighty whole can parallel the original structure. A worthy ambition is this, but one that led to the greatest disappointment this writer ever experienced in a loved scientific theory, which thirty years ago held his enthusiastic care, and thirty years ago was sadly relinquished. Unquestionable evidence taught that *fragments* created out of drugs by chemistry do not parallel the natural intermolecular structures that establish drugs as remedies.

Much of the present discouragement of Regular physicians is surely due to the use of fragments only. Unwisely they have ignored the claims of plant structures which in themselves are valuable in medicine, but are neglected and discarded because the test tube and reagent of the chemist cannot create from them bodies like unto the poisonous alkaloids, atropine, strychnine, morphine. These men seek the hurricane; the still, small voice has no part in such medication.

Eclectic thought comprehended the situation in the latter part of the last century, and through clinical experimentation came into possession of a great, rich field which the Regular physician had unwittingly relinquished. It turned toward the evolution of a standard form of clean remedies, as nearly devoid of common plant dirt as possible, which should parallel the natural drugs as a whole, not be a fragment only. The demands of exact Eclectic medication in which small doses of natural, preserved, soluble drug structures were to be used to meet definite symptoms, made necessary the greatest possible exactness and the kindliest manipulation looking to the perfection of these preparations. The fathers foresaw wisely that on this materia medica the life of Eclecticism depended. By the use of this materia medica came their opportunity to do well their work.

The Evolution of Structural Remedies:—The one school in American medicine that has given its thought, its culture, its aim in the treatment of disease by structural vegetable remedies is acknowledged to be the Eclectic school. Whilst free to use all remedial agents, be they animal, vegetable or mineral, its great field has been the development of our native American drugs, It has taken freely from the discoveries of the Regular and the Homœopathic schools, crediting them therefor; it has no less freely given to them. The ambition of the Eclectic has been to investigate, to discover, to demonstrate. With this worthy object, as the various American drugs were investigated, the therapeutical values of these drugs were given to the world. They were placed before the profession under the true names of the plants yielding them. Text-books, materia medicas, works on practice, descriptive both of the drugs and their action in disease, were written. Thus, the facts evolved were ever at the command of men of other schools, whose investigating care was chiefly given in other directions and whose study was chiefly directed towards other fields. The evolution of these Eclectic remedies

has been clinical, experimental in human disease expressions, (not on animals in health) by a rule which necessitated a long and circumspect study of each remedy. It is a clinical furthering of the empiricism of the past in which as a rule the natural energetic structure of a drug dissolved in an appropriate preservative menstruum, separated from inert matters as much as possible, is viewed as a whole, and then used as a whole. Due credit is given isolated substances in their useful places. Indeed, the credit of discovering those most valued in American plant life is to be credited to Eclecticism. But we value above all the interstructural effect that comes from life-bound structures endowed with their full vital qualities, preserved in assimilable form. This vegetable Eclectic Materia Medica has been evolved by seventy-five years' study of organized plant structures. To attempt to parallel these remedies by crudities we have left behind generations ago, or by fragments broken out of them, is as illogical as to attempt to use the decomposition products of albumen as a food where experience has proven the value of albumen as a whole. On the use of these valuable structures has the therapy of our school been established, both as to its indications and dosage. It is a therapy and a materia medica that now is increasingly sought, and is greatly needed by the physicians of other schools, whose eyes I believe are at last longingly directed toward the fruit borne by the tree of Eclecticism, in this, its last quarter of nearly a century of patient life.

THE ECLECTIC OR AMERICAN MATERIA MEDICA.

JOHN FEARN, M. D., OAKLAND, CALIFORNIA.

Thirty years ago when artizans came to this country from Europe, the first thing that would attract their attention, would be the perfection of the tools in the hands of the American working man. No matter whether these men were engaged on the farm, in the factory, the machine shop, or in putting up buildings. This had not always been the case. But these tools had been manufactured, improved, and perfected by the American mechanic.

In the early part of the last century, the "Materia Medica," which is only another name for *the tools* with which the

doctor does his work, were so conde and so unsatisfactory in their operation, that many times the patient was in far more danger from the doctor's drugs than he would have been if disease had been allowed to run without interference.

I can look back nearly fifty years, and recall the bloody work of the lancet, and the death-dealing and health-destroying effects of poisonous drugs in massive doses. I remember when father was taken down with acute fever. The doctor was called. He called for a bowl and a towel, then he proceeded to abstract the life current. Having done this, the doctor, having discovered that the *liver* was the offender, and that must be shaken up, this was done so violently and repeated so often that in a little while the patient did not have a tooth in his head. And in other ways was left a physical wreck.

I am not blaming so much the doctor. He was a scholar, and a kind-hearted man. But he was working with the wrong tools. These tools had mostly originated in Europe, and they had not been perfected in America.

It was against these tools and their manner of use that the American people who thought for themselves soon began to register a big kick. And it was during this vigorous kicking that the Eclectic or American Materia Medica had its birth, and intelligent people soon discovered that the warm teas, hot drinks, bitter infusions, vegetable cholagogues and hot baths, yea and the *Lobelia Emetics* of the early Botanic Doctors, were far more pleasant in their effects, and much more successful in putting disease and sickness to flight, than the learned doctors' remedies. In fact, such was the success of these early medical reformers, that they and their new methods were soon in great demand by large numbers of people. As this continued the men of the dominant school who were in power, began to persecute and prosecute and slander and vilify these early reformers. They said these men were ignorant men, and so far as scholastic attainments they were right as to many of the reformers. They called them *Root* and *Yarb* doctors, or Sweat-em and Poke-em doctors. In spite of the immense success of these men, many of whom had never seen the inside of a medical college, they were treated to every indignity, some of them being most shamefully imprisoned. But this harsh treatment had one result. It made an impassable gulf between the reformers and what was known as the old school doctors.

You could not get these men in their practice to use any of the old poisonous remedies, which had so long been forced upon the sick; yea, and without rhyme or reason.

The cry of the reformers was no more bleeding, and no more mineral poisons. The lines of battle were clearly drawn and every doctor must be on one side or the other. There were no Eclectics then, no choosing from all sources. Some of us today who have learned to use many mineral remedies with advantage, think that in those times the pendulum swung too far.

The fact is we can scarce conceive how much those reformers suffered; and how much the sick suffered at the hands of these duly authorized and legalized physicians, till this break occurred. The materia medica in use by the physicians was almost entirely just the remedies, that had been brought from the old countries. There was no such thing as American medicine, except that which was in use by the aboriginal inhabitants of the countrv. These children of nature in their tents and wigwams were true to nature. And in the use of simples gathered from field and forest, from vale and mountain, these people, native to the soil, were successful. They in their day were the American doctors. And conde though their methods might be, many a white traveler who fell, sick and maimed, into their hands, proved them to be successful in allaying pain, and wooing back health to the sick. And now as a new beginning had to be made, what more reasonable then that these reformers should be willing to receive points from these natives of the country in regard to the medicines of the country.

I have known some so-called Eclectics who did not like to trace their medical pedigree back to the Botanic Reformers, much less to the native Red Man. For my own part, I can truly say I have no objections to such a pedigree.

The remedies used by the early reformers were condemned, and ridiculed by the doctors in power. But in spite of this they have steadily grown in favor, till today a very large per cent of the medicines used by physicians of all schools in this and in other lands, are the medicines used by these early American doctors, remedies that were indigenous to the soil and not brought from over the seas, and therefore *American Medicines.*

It took a long time to bring about this state of things. For years the dominant school was determined not to see any good in many of our native plants. This went so far that, the remedies

used by the reformers had to be gathered by their own hands, because they could not buy them. But as the demand increased so vastly, firms apart from the old chemical and pharmaceutical firms were started to supply American Botanic and Herbal Remedies. And thus arose houses such as W. S. Merrill, Merrill Thorp & Lloyd, Lloyd Bros., B. O. and G. C. Wilson, and others. The business done by these firms in purely American drugs was phenomenally great—and gradually the old line drug houses fell into line. But the assumption of some of these old line drug firms was simply immense. For instance, in looking over a list from one of these houses quite a number of years ago, my eye fell on the name of a plant with whose medical properties I had been acquainted long before that firm came into existence. And yet in their list they say: *First introduced by us.*

Thus we have seen that the Eclectic or American Materia Medica was vegetable in its origin; it was grown on American soil; it was exploited by American men, and the true Eclectics today are in the succession. They are the true descendants of the men who, when this country was still young, cut loose from established precedents, and carved out for themselves a materia medica—which has every right to be called The American Materia Medica. But this American or Eclectic Materia Medica was not born in a day. Like most good things it was a thing of slow growth. The improved materia medica of those days was far from perfection. Though we use the same plants and materials to make our medicines that our fathers used, yet how different the finished products. This writer believes that the best representatives of the vegetable remedies used by the fathers were infusions. They were very effective, but often very unpleasant and to the last degree unstable. For years concentration was attempted by boiling down and evaporating, but so far as the finer principles of plants, this writer believes these methods were always a failure. You might as well expect to get the soul of a man by boiling his body, as to get the vital, health-giving powers of plants by decoction and evaporation. Decoctions and solid extracts were never a great success in the American or Eclectic Materia Medica. When we now give from the one-twentieth to the one-fourth of a grain of the active principle of podophyllum pelatum, do we ever recall the time when one-half to one teaspoonful of the powdered root used to be given for the same purpose? Those of us who do remember those doses, do

we remember that it was Prof. John King, M. D., who discovered the secret of getting the active principle? Thousands of physicians all over the world give this remedy without a thought of that grand old laborer in the cause of the American Materia and Medica. It was the Eclectic who elaborated the active principles of plants which have been used with such good results.

Think of the fluid extract of thirty years ago, how uncertain in their action. Compare them with the finished products of our best houses today. What a change! Who has done the work that has brought about this change? It is the patient labor of men who are the direct successors of those laborers, who cut loose from old-time traditions. And who inaugurated the American Materia Medica? There have been three men in the past, two of them are dead, the third is living and abundant in labors today. These three men I have elsewhere named the three John's: John M. Scudder, John King and John U. Lloyd. To these the world of progressive physicians and the world of the sick, owe a debt of gratitude. They have done great things for our materia medica. Their last united effort has resulted in a class of remedies hitherto unsurpassed. Whatever there may be in store for us in the future, today we have no better remedies than Specific Medicines.

A word in conclusion, in the beginning the American or Eclectic Materia Medica was entirely vegetable and in this field, Eclectics have had great success. Today our hands are not tied, we are privileged to use every kind of remedy that can help the sick —ponderable and imponderable, all these helpful means, may truly be called ECLECTIC!

But it is the remedies grown in our own land, indigenous to our own soil, that have the best right to be called *The American Materia Medica.*

THE OLD AND THE NEW (IN MEDICINE).

V. A. BAKER, M. D., ADRIAN, MICHIGAN.

In the spring of 1853 I issued my first circular, informing the public that I desired a share of their patronage. Perhaps it may be in order to read to you this circular. It is as follows:

MEDICAL CARD.

Investigation of Medicine on Reform Principles in the

Curability of Diseases. Dr. V. A. Baker, Eclectic Physician. Office in McCollum's Brick Block, North End, Carthage, Jefferson Co., N. Y.

Dr. Baker offers his progessional services for the treatment of all diseases incident to our race.

Embracing "Reform" gathering from all sources (not poisons), he feels confident he can treat with success very many of those diseases which have withstood the test of Orthodox treatment, as, incipient consumption, diseases of stomach and liver and their accompaniments, pain in the side and head, dimness of vision, etc.

Also diseases of the spine and uterine organs, and diseases of children.

Particular attention given to *all* diseases, acute or chronic, causes explained and means of cure pointed out. If desired, many cases of cures can be referred to.

Charges reasonable, advice free.

Carthage, N. Y., May, 1853.

In October, 1852, I formed a partnership in medical practice with Dr. J. W. Owen, of Carthage, a gentleman of original ideas, who had been in practice for several years. The partnership lasted six months and was mutually dissolved, Dr. Owen removing to a neighboring town, resulting in my issuing the circular as just read.

The amount of ridicule I received at the hands of the Old School was vigorous I assure you. The town at that time contained about 1,500 people, there being five other physicians. Drs. Stanton and Allen of Eclectic faith counselled with me. They were practicing in Copenhagen, N. Y., a town seven miles away, and were well known. No "regular" would think of aiding me.

If any physicians are present today who knew either of these tried and true men in the Eclectic profession, they will agree that they were exceptionally good men. Both are now on the other shore, Dr. Stanton dying many years since, Dr. Allen more recently.

Tongue nor pen can make plain the methods Old School physicians of that day indulged to berate and belittle those of any other faith. Young men today, graduates of our colleges, with their present standing, can scarcely realize the social advantages they have in this respect over those of fifty years ago. For example, if a young Eclectic happened to treat a protracted

case of labor, or fever, or any case out of the ordinary, the old-schoolers would talk it over, make capital out of it and if possible, prejudice the community against us.

In the early years of my practice I had with me a young genius, an original man in methods, a close thinker and observer as a medical student. One day a rabid Old School doctor met the young doctor in question, where several friends had assembled. The question came up regarding the burying of a cataleptic, who was later exhumed on suspicion that he had been buried alive, which suspicion proved true. He had turned partly in his casket, and had in his desperation torn hair from his head. Other manifestations of desperation were apparent.

"Young man," said the old-schooler, in a tantalizing manner, "an Eclectic must have attended that man." "You are right," replied my young doctor friend, "had he been one of your kind *he never would have turned in his coffin.*" This young man was W. T. Rice, who subsequently graduated at the Eclectic Medical Institute, of Cincinnati, became a surgeon in the army that fought for the Union in our late Civil War, was detailed as special operating surgeon at the battle of Cold Harbor, sleeping on the ground when in an exhausted condition from overwork, thus taking a cold from which he never recovered, finally in 1866 his noble life ended. The Grand Army Corps at Hermon, N. Y., the place where my friend's remains now rest, in memory of him is named the W. T. Rice Army Corps.

I well remember my first case of Colles fracture. My patient, a farmer, was the head of a family, a man well known, influential, and respected by a wide acquaintance. Although I succeeded in reducing and maintaining juxtaposition, there was for a time a slight prominence of the styloid process of the ulna and for a time inability to use the hand. The case elicited the attention of the profession in the vicinity, the gentleman was invited before the County Medical Society and a bug-a-boo scare attempted, the conclusion being that I should be sued for malpractice.

The patient seeing the desire to deride and persecute me asked one of the leading surgeons if he had not known of similar cases not the fault of the surgeon? "I must admit," he replied, "that I have." "Would you advise me to prosecute under the circumstances?" queried my patient. "I advise all men to evade lawsuits and lawyers," he replied. The sympathy of the com-

munity was on my side, but if my patient had been untrue to my interest the men who interested themselves to injure me would have biased a jury by their unfavorable evidence and rejoiced at my discomfiture.

How changed the situation confronting the young doctor of today, not alone regarding Old School persecution and prejudice but in regard to greater advantage in the general means at command, instruments, remedies, standing. Another feature in practice of medicine fifty years ago was the low fee charged. When I first commenced practice, visits in the village were fifty cents, with twelve and one-half cents a mile added for traveling fees and nothing extra for night calls. Obstetrics, $3.00 to $5.00, and all else in proportion. After my advent in the town, the Old School cut rates to three shillings per visit in an effort to starve out my partner and myself.

It should be remembered that in years gone by a class of doctors called themselves *botanic*, who principally used decoctions, from roots, herbs, bark, etc., although they used powdered preparations to a certain extent. A class calling themselves *Thomsonians*, used similar remedies, but made a special feature of giving the *lobelia emetics*. They were followers of Samuel Thomson, and opposed the barbarous routine treatment of the Old School.

This leads me to say that at the time of which I write, Old School treatment was routine in earnest. The sheet anchor of their practice was calomel and a course of treatment which meant calomel carried to salivation. I presume there are not half a dozen of the younger practitioners within hearing of my voice, even with fifteen to twenty-five years' practice who have ever seen a patient salivated or perhaps even bled. But they cannot but note the victims of the morphine and cocaine habits, that in Regular practice largely replaces the barbarous make-ups of Old School ancient treatment.

To illustrate more fully the Old School method of that day, I will relate what an Old School practitioner stated was the only method needed to treat any case whatever:

"Give me," he said, "calomel, opium, tartar emetic and a box of blister plaster and to the dogs with all the other drugs."

Let me next relate an incident showing the unprofessional methods of the time of which I write. A case of strangulated hernia was to be operated upon by an old-schooler, and several

doctors were present, among them the late Dr. Hale of Adams, N. Y., who I think was a relative of the patient, but not a consultant. Albeit, he was the patient's family physician, was away when needed, hence the change to Old School.

Dr. Hale, desiring to know for himself, was examining the patient when the surgeon, supposing him ignorant of the principles of surgery, as all Eclectics of the times were supposed to be by old schoolers, in a dogmatic manner approached the patient and asked what Dr. Hale expected to learn of this case.

"Whether it is in my opinion, a suitable case on which to operate," replied Dr. Hale. "Ah!" (pompously), "then you presume to know something of such cases?" "I have seen them before," replied the doctor. "What do you call the part of the patients' anatomy involved?" queried the old-schooler, thinking to put Dr. Hale to a disadvantage. I call it the left lateral and lower part of his belly," replied Dr. Hale, "and I desire further to state that it needs no knife and can be reduced by manipulation."

Provoked beyond measure, the surgeon asked, "Can you do it, sir?" "I think I can," replied Hale. "You are an intruder, sir, and will please retire." "No, no," said the sick man, "I sent for Dr. Hale and desire him to remain and care for me if I survive the operation." "I will not operate under such circumstances," said the surgeon. "You can keep all the quacks in the country, if you like, but I will not be a party to it." Dr. Hale heated a brick, wrapped it in a wet cloth, applied oil of lobelia to the parts, oil silk over it, the brick pressing over strangulation. He was so fully master of such cases that the strangulated hernia was speedily reduced to the amazement of all present, including the surgeon who had been summoned to operate and had remained to see the quack's manipulation, and presumed discomfiture by failure.

Many were the characteristics in Old School methods in bygone days that are but dimly apparent now, one of which was concealment of the disease. The patient was not expected to be informed concerning the affection and disease was considered something to be *driven* out of the patient, the more heroic the treatment the more likely was it to succeed. Faith in anything than heroic medication was no part or parcel of Old School belief.

It is related that a Scotch doctor had a patient for whom

he had just prescribed, leaving strict orders with the nurse to allow no visitors to call on his patient. The Scotch have a repute of being strict disciplinarians, and as he left the residence of the patient the physician noticed two clergymen approach the dwelling. Suspecting they might overrule his orders, he in due time re-entered the dwelling and stole quietly up to the patient's room, finding one clergyman engaged in prayer by the bedside of his patient. Without ado, the doctor commenced berating the nurse. The gentlemen of the "Cloth" attempted pacification by stating that they were praying that his remedies might have good effect. Said the doctor to the nurse, unheeding what the clergymen said, "Is this the way you treat my orders to allow no intrusion? Dismiss these men, give the sick man the pills as I ordered and they will move his bowels, God or no God."

Fifty years ago there was no one to ask, "Why do ye so?" Any one so desiring, with a bare smattering of knowledge, could engage in medical practice. There were no medical examining boards, no registration laws, no hospitals, save the few in large cities, no trained nurses to help the young doctor in his severe cases. There were no Sanitariums or the many appliances to facilitate medical and surgical practice. In my earlier practice the things of today were unthought of. What a revolution has taken place. Eclecticism and homœopathy may be credited with doing better than they knew; the public could not fail to note the difference favorable to the newer methods. Gradually the Old School has been forced to modify its practice and teachings. Who would now submit to the horrors of treatment in vogue fifty years ago? when venesection, blistering, calomel, tartar emetic and opium were the practice of Old School?

A Word Now Concerning College Trials.—My alma mater, the Syracuse Medical College, S. H. Potter, my preceptor, being dean, being troubled to get dissecting material, the cemeteries of outlying towns were visited for supplies. On one of these ghoulish raids, the three students interested met with an accident, the sleigh tipping over, the team getting away, leaving the sleigh in one place and cadaver in another. Just as they got within the city limits, the body was discovered and recognized as a Catholic woman who had been interred the day preceding the evening of the accident.

Such an excitement as followed can be better imagined than described. Some twenty of the class were arrested and these sub-

pœnaing others to aid in proving their innocence made quite a company at the place of trial. The college was mobbed, students hooted, police called to preserve order and to protect the prisoners during trial or rather examination, which was in the village of Liverpool, six miles out of Syracuse. Nothing definite being proven against the students arrested, "No cause of action" was the verdict. Strategy was resorted to in getting from our hotel, where we remained, from supper time till one o'clock at night, claiming we were to remain all night, thus tiring out most of the mob. But the few of the mob who did remain, made night hideous with their shouts, and missiles hurled at us as we took a hasty departure from the rear of our hostlery.

Such an ordeal as we passed through at that time, surrounded by a drunken mob, I hope never again to experience. The young physician of today experiences none of these difficulties. On the other hand, innumerable advantages present themselves. Colleges are better equipped, hospital facilities are superior, prejudice of the people where Eclecticism is represented, is a thing of the past; the old has merged into the new, so imperceptibly yet so intelligently, that we may well take pride in being marshaled and enrolled in the advance guard. And when we reflect upon the many differences and note the side light of the present, well may we compare the past, with it tallow dips and oil for light, with electrical incandescence of now.

New York Health Commission alone expends $100,000 yearly and nearly all the states make appropriations to benefit mankind by holding in check communicable diseases.

This, with vital statistics, registration of births, deaths and marriages, the investigations in bacteriology, the study of fever, its cause, treatment and preventive means, and the gratifying per cent in diminishing death rate; the pure food laws and drug inspection; the agitation of consumption prevention, the innumerable surgical instruments and appliances, the magnificent Eclectic Specific Medicines of today, throw into the shadow all we had in the olden time.

The Roman spirit of the past, seasoned with bitterness and prejudice is pacific comparatively, and if we here and there meet one with the spirit of persecution clinging to the skirt of his garment, we may well look on him with kindness as we reflect that as a school we have been instrumental in working a great reform, and that gratitude, not unkindness, is our due.

I will proceed now to contrast the old and the new remedies and call attention to the changes that have come to Eclectics in the practice of medicine, since in 1853 I commenced the practice of Eclecticism. I shall contrast the remedies of that date with the present, for the younger men know nothing of conditions that prevailed in those strenuous times. Then, there were no sources of drug supply, as now we have them. No pharmacist would use the word Eclectic on a label or a print. We were ostracised and forced to rely on our own efforts regardless of whether we had time to spare or any knowledge of pharmacy. We were looked upon as quacks, and the druggist sneeringly spoke of our preparations as he would of those of charlatans. To tell the truth, they were far from elegant. That was the day of compounds and mixtures, of compounds rational and irrational, good, bad and indifferent. There were compound syrups, compound tinctures, compound ointments, compound this and compound that. There were very few resinoids, alkaloids or oleoresins. Our mixtures were crude, voluminous. We gave teaspoonfuls, tablespoonfuls, at a dose of compounds that were unpalatable and too often carried much foreign matter for little medicine. But in it all we were kind, as compared with the *old school* physicians, and our medicines were as sugar, contrasted with their heroics.

For example: Our Compound Tar Plaster was mild in its effect, as compared with the Regular Tartar Emetic plaster and the Regular Croton Oil, but we made a suppurating sore that I shudder to reflect over now. Our May apple was vicious as a cathartic, and we gave it in cathartic doses, but its effects were mild, as compared with the fearful effects of calomel and blue mass, the old school standbys. We did not bleed; the old-school doctor seldom failed to bleed man, woman or child. The blood drawn from suffering humanity in one year would have floated a steamboat. We vomited freely by means of our acetous emetic, the Regular vomited with his tartar emetic. Ours was the kindlier treatment. Take it all in all, our crude medicines were a great improvement on those of the Regulars, but a physician who would attempt now to treat a modern American community by the Eclectic methods of fifty years ago might expect a coat of tar.

But with it all, too many of us old timers resisted the new Eclectic medicines. Give John King, John M. Scudder, and their staunch supporters the credit for forcing a revolution in our

methods and our medicines. We could not believe that medicines could be made pleasant and concentrated, clean and permanent, and yet effectual. We could not accept that small doses of clean medicines could perform the wonders they do perform. Specific medicines, specific medication seemed chimerical. We too often resisted this advance, which saved our school. Not until recently did I fully appreciate the mighty work that has been done for humanity in this direction. True, that I knew that specific medicines were growing in favor everywhere, but I did not realize the care it took to make them; the study, the experimentation, the special apparatus. These young specific medicationist graduates had been successful, and were favorites of the people. But not until I saw the care taken by the manufacturers of Specific Medicines did I appreciate that success must surely come to men who knew how to use such remedies. Every book that has been written on any drug-subject is at the command of the manufacturers; it is the greatest special library in the world. The special apparatus in their laboratory is marvelous, it can accomplish wonders. When I now see the familiar label and carton, I think of its origin and of the great lesson I learned in the laboratory where Specific Medicines are made. When I take my little bottle of specific gelsemium, macrotys, jaborandi, chionanthus, and, old as I am, practice the new Specific Medication doctrine, I am surprised at the result, as contrasted with old-time remedies. I think of the old style compound syrups, compound tinctures, compound extracts, with their uncertainties, their dirt, their useless materials, and I thank John King, John M. Scudder and the Lloyds for their years of patient research, writing, pleading with us all in favor of a better medication and a better, cleaner pharmacy. Every physician in America can get what no man could when I began to practice, for our Eclectic Specific Medicines are sold in every drug center of the community, they are known as Eclectic Remedies, they are recognized as the finest plant preparations in the world.

We had very few fluid preparations in those days and were forced, as a rule, to use crude drugs as medicines. Many of the tinctures to be had at the drug stores were valueless. The few extracts were, as a rule, loaded with sediment and perfectly unreliable. There was no certainty in remedies, there could be none in results.

Now, how changed. There is exactness in the principles of

Specific Medication. Our Specific Medicines are as reliable as coin of the realm. When we consider their concentration, the smallness of the dose, necessary to produce the effect, and the certainty of that effect, the young Eclectic physician of today has cause for congratulation.

A case recently came under my observation, it being that of a man fifty years of age who had been troubled for a number of years at intervals, with what physicians pronounced congestive headache. He had taken chloral, bromides and even morphine, at times so intense did the headache become. His symptoms were flushed face, increased circulation and elevation of temperature. He was a man of good habits, weight 175 pounds, stout built, occupation banker. The cause I diagnosed as stomach and intestinal indigestion reflexed to the head.

He knew nothing of any other than Old School treatment. To give him relief I prescribed Specific Medicine Gelsemium and Ipecac alternated, but at the time could not get Lloyd's Specific Medicine and was forced to use another preparation of gelsemium. His face, during his attacks, was flushed, appetite gone, and he was very nervous. The fever and flushed face continued; the remedy failed. But so sure was I that it was a gelsemium case that I procured a little of Lloyd's specific medicine gelsemium, believing what I had prescribed was not the standard. In a short time the influence of the Specific Medicine was marked, the patient stating to me two hours later that "the last remedy was doing its work," and it did do it.

In the olden day even the Old School wrote few prescriptions, those mostly including "pink and senna" for worms, and epsom salts as a cathartic. Calomel and jalap were not neglected and whiskey made bitter with tansy or peruvian bark and gentian was in evidence. Another remedy in universal use was picra (pulv. aloes et canella). This last-named remedy was prescribed so often in ye olden time that many families kept and gave it, especially in springtime, as preventive of all ills. Opium, laudanum and paregoric were more frequently used than morphine, to control pain. Syrup of squills was the standard remedy for croup. Asafoetida for hysteria; for coughs and colds, syrup of ipecac and squills, with tincture of opium or paregoric added.

As I was in the drug trade a portion of my early life I had opportunities for learning these things, and the heroic doses of crude drugs, in powder or decoction, or tinctures, that was pre-

scribed. In truth and candor I must repeat that Eclectic practice was then also crude, and heroic, too. Our medicines were crude and disagreeable. It takes time to bring perfection from the raw material. It takes brains, culture, thought, study, experimentation, and time to do away with drug crudities, and to disabuse and free the mind of prejudices.

Prejudice and superstition are more readily appealed to than intelligence; yet as the agitation of thought is the beginning of wisdom, so was the innovation of our fathers in medical lore, a veritable thorn in the sides of the upholders of the then existing faith; but as time sped on, men of culture and eminence, from time to time joined the ranks of those of the newer methods; schools for teaching the newer faith were organized. Chemistry, pharmacy and the allied branches polished our crudities, and we pushed onward and upward, striving for the best, investigating the various systems of medical practice and appropriating that which experience proved beneficial in a curative sense and with results that are marvelous, in comparison. Indeed what, as a school, we have done and are doing has blessed mankind immeasurably.

The crude drugs of the past, whether of roots, herbs or barks, were necessarily given crudely in comparison with the fine products at our command now in the form of Specific Medicines, in their constitutional freshness, each plant being treated according to its needs to yield for the active concentrated clean preparations that are sure to give us results sought, if prescribed analogously.

I spent several days last winter, while on my Florida trip, to investigate the methods of extracting the virtues of the standard remedies constituting Eclectic supplies as produced in that paternal home of Eclecticism, Cincinnati.

Any one visiting the supply house and laboratory of the Lloyd Brothers, and noting their extensive and well-ordered plant, cannot but be enthusiastic over the neat, clean, active Specific Medicines. We Eclectics owe them a debt of gratitude for the great pains they take in giving us of Eclectic faith reliable means to the end. I speak as one of the olden time, capable of contrasting the past with the present. Nor to us alone are these gifts confined. The whole civilized world is paying tribute to our New School remedies. No longer are they called quack remedies, and they grace the shelves of thousands of physicians of other schools.

We have the open credit of being blessed with the cleanest and most reliable products of the vegetable materia medica that can be produced, to which all schools now pay tribute.

Cincinnati is really the headquarters where originated the methods of manufacturing New School remedies. Prof. John King, M. D., the Freemans, Newton, Powell, Locke, Howe and many others were the advance guard, and last but not least, Prof. John M. Scudder, who, though not among us, lives in our memory and his works live after him. Monuments of his zeal and industry in the cause of American Eclecticism are the principles he added to the grand Eclectic work.

The old and the new of our school have been ably handled, they are in a historical sense inseparable.

Our young men of today can scarcely realize the amazing change since the newer methods began.

Many of our valuable curative agents have been looked upon in the past as foibles of an hour and beneath notice; yet they are twigs, so to speak, emanating from the body of the tree of Eclecticism, for which with its present opportunity I predict a glorious future.

ECLECTIC MEDICINES.

H. W. FELTER, M. D., CINCINNATI, OHIO.

Realizing that the majority of contributions to this section will be on the therapy side of medicine I have taken the liberty to confine my paper to the materia medica, and present status side of our subject.

It is now but little over three-quarters of a century since American Eclecticism had its origin, but from that day to the present it has been first and foremost, a school devoted to the study and elaboration of drugs and their uses. Were I to frame a concise definition of the Eclectic school of medicine, I should define it as the American School of Specific Medicines and Specific Therapy. The success of Eclecticism has been achieved with definite medicines, as true in the earlier days as now. That the pioneer Eclectic lacked the elegant pharmacals of today is true, yet their remedies, even in those primitive times, were in advance of those of their competitors. In no school of medicine has care in the making and uses of medicines been so apparent as in the

Eclectic school; and our rivals of today have had their eyes opened to this fact to such a degree that it is not uncommon to hear prominent members of the competing schools acknowledge the superiority of Eclectic medicines. This they do even when unwilling to study or to accept our therapy.

When one casts a retrospective glance over the history of Eclectic materia medica, synonymous with Eclectic progress, what an array of struggles for the betterment of medicines, presents! From the time of the crude simples of nature, with the home-made infusion, decoction, and syrup and the office-made tincture and wine to the present time, there has been that constant endeavor to improve the quality and the exactness of medicines. The "Eclectic concentration or resinoid distraction" was bitterly fought by those who already foresaw disaster if the multitude of counterfeit medicines that were patterned after a few good ones, were allowed to become the representative medicines of the school. The fluid extract, fortunately, was never countenanced by our school as a whole. The tablet innovation, with its apparent alluring advantages of facility and cleanliness to the detriment of the integrity of ingredients has not found an abiding place in our therapy. Serum fads find few advocates among us.

We take it for granted that most Eclectic physicians dispense their own medicines. Those who do so know the resources with which they work. Those who do not dispense are not always so well qualified to judge. The former has learned that a cheap drug is dear at any price. He has learned that there is a force in good medicines for which he is willing to pay liberally. He has also learned that the pharmacist is more than willing to furnish the better quality of medicines, providing the doctor advances the requisite price. Purity, stability, and activity are the qualities essential in a good medicine. Elegance and facilities for administration, so much clamored for, are but secondary qualities, desirable only when they do not interfere with or sacrifice the therapeutic value of the preparation.

The doctor who dispenses becomes an expert in judging the qualities of medicines. He learns that medicines are to be taken care of as well as anything else of value. He soon finds out that adverse results are often due to drugs that have lost their force. The best of medicines carelessly kept may become worthless or unreliable in a short time. Certain interstructural changes take place in fluid medicines, which, in many instances, instead of

stamping them as inferior or spurious preparations, declare their genuineness. Thus, castor oil, which when fresh is thick, viscid, odorless and colorless, becomes, when old, still thicker, develops an odor, and becomes a poisonous irritant. Acid solution of iron, difficult to prepare properly, may vary in color and most likely in composition, and when old is liable to deposit a yellowish powder. These are but proofs of their identity. Yet as therapeutic agents they signalize the fact that fresh preparations are much to be preferred.

The chief object of this paper is to show the superiority of Eclectic medicines over those of diluted fluid extracts and preparations made after the pharmacopœial directions, and to indicate the great progress that has been made in the last half-decade in the evolution of our specific medicines. My purpose is to contrast the Eclectic medicines with the pharmacopœial products and to compare the present specific medicines with those of but a few years ago. I shall also append a few notes on what we ought to expect of our Specific Medicines and a few remarks as to their care and preparation for use.

First let us refer to the Pharmacopœia. You are undoubtedly aware of the fact that in the absence of statutory provision, the Pharmacopœia is accepted as authority upon the quality and strengths of the preparations it enumerates and describes. A disputed question, then, unless arising over the medicines used as standards in the schools of medicine classed other than regular, is decided according to the requirements of the Pharmacopœia. Has it ever occurred to you that the Pharmacopœia is revised but once in ten years, and that ten years is long, in these rapid times, to wait for authoritative recognition of improvement in medicinal preparations? Consider the position of the regular pharmacist who is obliged to conform to the text of the Pharmacopœia for ten years when, perhaps, for several years prior to the expiration of that time he has devised and perfected a medicine or process of far greater merit than those of the exacting standard.

Progress and advancement are thus irrevocably held in check by such bondage to authority and though such a work may have many admirable features they are more than overbalanced by this check put upon progress. Were it required that no preparation be inferior in quality to those denominated and described in the Pharmacopœia then the case would be altered and progressive pharmacists would be free to exercise their inventive ingenuity. To

the fact that the Eclectic school has always claimed and exercised freedom from such servitude to authority is due her splendid medicinal preparations of today.

Medicines prepared according to the Pharmacopœial directions are generally made according to a group method. In cases of vegetable substances a definite amount of dried drug is directed and simply percolated by a certain amount of menstruum of a defined kind. Thus the same process is repeated in the preparation of most fluid extracts and many other medicines. On the other hand the Eclectic contends that plants have as much and as varied individualities as have persons, and in order to understand such individualities each plant requires separate and individual study. To make medicines of such quality as is demanded by Eclectic physicians requires special investigations as to locality of growth of plant, habit of growth, seasonal influences, etc., besides special study of the interstructional nature and relations of the parts employed. In this manner our specific medicines have been studied. Preparation in groups according to fixed general methods will not evolve the best medicines, but by such blanket methods are the Pharmacopœial products produced.

As an instance of the care necessary in the selection of material let me refer you to pulsatilla, one of our leading medicines. To be of prime quality only fresh unwilted pulsatilla, gathered preferably in the Hartz mountains of Europe, should be employed. It must be packed in alcohol as soon as collected. Gelsemium, preferably that grown in a Southern locality, of which North Carolina is typical, must be placed in alcohol as soon as gathered, and afterward worked into a finished product. Rhus toxicodendron is of little force when not worked fresh. Salix nigra aments, sabal serrulata, and cactus are among those plants which must be worked fresh to give honest medicinal values. Pulsatilla, rhus, and gelsemium contain evanescent principles upon which the value of these medicines depend. Gelsemine by no means approaches the full value of gelsemium, which depends for its specific medicinal force upon its combined natural principles. Hence the necessity of working it fresh, in order to obtain a representative medicine. A dried gelsemium, even though gelsemine be in standard amount, will not yield a fluid product fulfilling the indications which have been established by Specific Medicine Gelsemium. Thus it is that when our best drugs are worked according to the Pharmacopœial methods they fall short of expectations and

fail to meet the indications as evolved from representative medicines of Eclectic standard quality.

Again let us enter our protest against that chemico-pharmacy which destroys the natural interstructural bonds between the constituents of a drug in its natural state. It is customary to read that such and such a drug contains such an alkaloid, of glucoside, or other constituents, when the truth of the matter probably is that such a proximate principle has been manufactured or is evolved from the destructive action of the reagents used in breaking up the natural plant bonds. Such agents by no means represent the kindly action of the drugs from which they are evolved. No one has yet been able to get the beneficial action of aconite from aconitine, or of gelsemium from gelsemine. Moreover, there is that danger, too often attributed to idiosyncrasy, of getting pronounced physiological, if not poisonous action, beyond the control of the prescriber. Neither strychnine nor brucine represent the therapy of specific nux vomica, which contains at least four active bodies, each in their natural proportions and combination.

Adulteration and sophistication, as well as the marketing of crude drugs of inferior quality, is one of the evils of the drug trade that has not passed into oblivion. Take now the outside remedies, in which the Eclectic school is concerned only to the extent of using them as outside remedies, and the reports concerning adulteration and sophistication are appalling. The investigations of the New York Boards of Pharmacy and Health have been the subject of lines of editorials in the Pharmaceutical journals, which needs must discredit the cause of general pharmacy unless some method can be adopted to correct the evil. At present, it seems as though the only protection the medical profession has in these directions, is that of the label of the manufacturer, whose reputation is at stake in a preparation that bears his name, and that the indiscriminate compounding of remedies by those who have no interest other than in the one mixture, is very risky. It remains, however, for our friends of other schools, who are directly and vitally concerned in the evils we have mentioned, to evolve some method to correct this abuse. In this connection, as indicating the conditions in the direction of remedies used by us, we extract from "Drug Topics" the following report from the Treasury Department of the United States work, as published

in the "Oil, Paint and Drug Reporter," which is in the line of remedies used by us.

"Following is an abstract of the Treasury Department's report upon the work of the laboratory of the appraiser's office at New York during 1903, which was taken from the "Oil, Paint and Drug Reporter":

Asafœtida (standard, 50 per cent. resin); sample from Baltimore 22.50 per cent. resin; sample from Malone, N. Y., 52.50 per cent resin.

Ipecac (standard, 2 per cent. total alkaloids); 8 samples from Seventh Division, Port of New York, ranging from 1.59 to 2.83 per cent. total alkaloids, only one sample being below two per cent. One sample from appraiser at St. Louis, 2.03 per cent.

Jalap (standard, 11 per cent. resin); 14 samples from Seventh Division, ranging from 6.14 to 16 per cent. of resin, 6 samples being below 11 per cent.

Opium (standard, 9 per cent. morphine); 44 samples from Seventh Division ranging from 3.7 to 18.7 per cent. morphine, nine samples being found below 9 per cent.

Rhubarb (standard, 40 per cent. soluble matter; three samples from Seventh Division, showing water soluble extract ranging from 4.04 to 42.83 per cent.

Senna (standard, 28 per cent. soluble matter); 4 samples from collector at Newport News ranging from 32.75 to 43.94 per cent. soluble matter.

As regards other outside substances, for example jaborandi, the closest care and attention is required in the way of discriminating between the many related plants, and the spurious drugs thrown upon the market. This, however, is not the concern of the physician using Eclectic specific medicines, because specific medicine jaborandi is made only from the true species, which, if not attainable, throws specific jaborandi out of the market.

Echinacea has come into general use since its introduction and the last few years has witnessed the marketing of many spurious drugs under the name Echinacea, some of them having no connection whatever with true echinacea. Just what becomes of these quantities of fraudulent drugs is a mystery, and yet the fact remains that care and knowledge concerning echinacea need lead to no confusion. The root is characteristic.

In order to show the progress in the evolution of our Eclectic materia medica let me call your attention, by way of contrast, to

the improvements that have been made in our specific medicines —improvements which reflect great credit upon Eclectic pharmacy.

First, as concerns pulsatilla, amygdalus, and rhus toxicodendron, these preparations are yet subject to gradual alteration which even the presence of alcohol will not prevent, and although they are not as evanescent as they were in times gone by, it is best for physicians to depend upon the recent article, such, at least, as has not aged beyond a period of one or two years. Gelsemium, which formerly threw down much albuminous matter, is now one of the most perfect of all pharmaceutical preparations. It is limpid, fluorescent, fragrant in odor, very energetic, carrying all of the desirable, active principles of the recent drug, and it is made, as before stated, from the green root, the process of manufacture producing a preparation which assimilates with all neutral liquids, miscible with water. The 1904 preparation neither precipitates nor deteriorates.

Belladonna, of the wine-red color, retains its qualities, as contrasted with the olden time belladonna specific, which was of a green color, from the presence of chlorophyll. It is miscible with all water, miscible with menstrua, and is permanent.

Passiflora is now made from the base of the stem-stock and the root mixed, thus giving it more of a green color than in former times, when it was made of the root alone, although it must be recognized that passiflora is one of the uncertain remedies—uncertain from the fact the specific indications and uses have not been thoroughly established.

Specific medicine salix nigra aments, prepared from the green flower buds or aments, retains its hold upon the profession, and may now be considered one of the established remedies. It must not be confused with preparations made of black willow bark.

Specific cactus grandiflorus is made from the true species, and needs no comment, or attempt to improve or modify it.

As concerns phytolacca, which formerly threw down a white albuminous precipitate, and apocynum, from which cane sugar crystallized in extreme cold weather, and an unsightly, rubber-like-material separated, as well as certain inert materials, all of which were of no value, these difficulties have been overcome mostly, if not entirely, as physicians using the later day preparations, comprehend.

Hydrastis canadensis is still one of the standard remedies and its use has gone outside the Eclectic school, it having become largely a staple in the regular school. In this connection, the line of experimentation, which began twenty-five years ago, under the auspices of Professor John King, who objected to the alcoholic preparations of hydrastis because they lacked certain natural inorganic salts, and which led to the evolution of colorless hydrastis, has perfected that form of the preparation to such an extent as, we are informed, to have brought no question concerning its action, and no complaint concerning its pharmacy, during the past two or three years. Before this, an occasional complaint was made to the effect that a white fungous growth would appear in dilutions, but it was shown that this growth developed from germs that accompanied the water, which is not the case with the hydrastis itself. Occasionally also, a few years back, a physician would report that in certain sensitive mucous surfaces, the hydrastis was too energetic, produced a smarting sensation, with slight irritation and inflammation. The cause of this trouble was discovered to be in the excess of one of the alkaloidal constituents, which overbalanced the preparation, and which, on being moderated, overcame this difficulty.

Many drugs from which some of most valued specific medicines are derived contain the so-called red tannates. In the finished product these tannates are necessary constituents to insure a good medicine though for some reason not well understood for years, structural changes would occur in which a deposit, sometimes gelatinous, would take place as the preparation aged. In some instances this was only an inconvenience; in others, objectionable. The object to be attained necessitated the retention of these bodies in the preparation for their exclusion, which would have been an easy matter, would have meant the weakening of the medicinal value of such preparations. Specific pinus was one of these agents, but it differed from the others in that precipitation, but not disintegration, took place and merely required the shaking of the medicine before using it. Specific cinchona, when added to water, threw down these tannates. Specific hamamelis would sometimes disintegrate and specific urtica was very apt to gelatinize. All who have used specific iris have noted this change and specific geranium invariably disintegrated with age, a brown magma separating with a serum-like superstratum.

These alterations were for years character marks of the

genuineness of the drugs and were to be looked for in representative preparations. It is now about thirty years since Prof. Lloyd propounded before the American Pharmaceutical Association the question: "How can we prevent the precipitation of red tannates?" and gave the first studies in a detailed paper on Gossypium. The investigation, started long years ago, seemed likely to be fruitless, but within the last few years he who proposed the question has solved the problem and the object sought to be attained has been accomplished. Now the specific medicines stand alone among pharmacals, particularly those prepared after the pharmacopœial methods in that the difficulties that have disturbed preparations containing the red tannates, among which may be mentioned, in addition to those already named, specific gossypium and specific stillingia, have been by experimentation and systematic study about eliminated. The specific medicines of each of these drugs, including also such outside compounds used by Eclectic physicians as oil of stillingia, now resist alterative changes to such an extent as to place them outside the line of substances which are to be criticized by reason of their liability to disintegrate as of old, and change from deeply-colored, transparent liquids to magmas or heavy precipitates, which make up the bulk of the contents of the container.

Another specific medicine, chionanthus, which, when made from first-class drugs, and carrying its full qualities, gave much trouble in the way of gelatinous precipitates, a transparent, jelly-like compound, in large amount separating, has been perfected without disturbing its constituent qualities. Here also it was found that the presence of this substance was desirable and necessary, but it is entirely different from the substance which makes the trouble in the red tannates, and required a separate line of investigation and experimentation. Within the last two years the object has been attained, as shown by the specific medicine of the present date, which remains liquid indefinitely, with scarcely any change whatever.

Attention must again be called to the fact that drugs that depend upon fixed oils or resins for their qualities, or for a part of their qualities, should not be expected to mix clear with water or water-miscible liquids. They should be expected to occasion some turbidity when added to water. This, instead of being viewed as objectionable disintegration, should be an indication of the good quality of the medicine. Macrotys, as you know,

renders water opalescent. So does coca when added to large amounts of water. Sabal strikes opalescent in small quantities, but precipitates when in large amounts. Staphisagria, podophyllum, polymnia, leptandra, jalap and rhus aromatica cloud water miscible liquids (alcohol excepted) when small amounts are added to them, and produce more or less heavy precipitates when larger amounts are mixed. If the precipitated substance is oily and lighter than water it rises to the surface, as shown with staphisagria and lobelia. Lobelia, buchu, eucalyptus and colchicum render water milky, while the slight turbidity occasioned by bryonia quickly disappears. Chimaphila throws a heavy precipitate with water. Leptandra, podophyllum, jalap, and cannabis throw down a resinous precipitate. Shaking or stirring such mixtures is necessary to insure even distribution of the deposits, upon which the therapeutic value largely depends.

It should be borne in mind, however, that many drugs are better in bulk, or in the form of infusions or decoctions than stock fluid medicines prepared in any alcoholic menstruum, no matter how carefully or conscientiously manufactured. For some unexplained reason the best fluid preparations of ipecac sometimes fail to provoke emesis, which act is readily produced when powdered ipecac is administered. Lobelia, in infusion, is very effective, but it should not be boiled, as boiling destroys one of its reputed active constituents, *lobeline*. Epilobium, buchu, asclepias, anthemis, matricaria, juniper berries, watermelon seeds, chimaphila, galium, prunus, amygdalus, and ulmus are more efficient and are to be preferred in infusion. Digitalis and apocynum, which were formerly commended in the form of an infusion, as being preferable over alcoholic preparations, may now be safely classed in the opposite direction, if we depend upon the specific medicines of those of plants.

Whilst it is true that apocynum yields its virtues to water, it is also true that it is so exceedingly repulsive and disagreeable in the form of an infusion or a decoction, as to render its administration in that form impracticable in the light of modern medicine and methods. A distillate of apocynum has been made with the hope that it may prove efficacious and yet pleasant to the taste. Professor Keys, of Lincoln, Neb., has undertaken the question of its investigation and for him Professor Lloyd has made several large batches.

As before stated, medicines, which by proper care retain

their virtues for a great period of time, may be readily destroyed by the carelessness of the doctor in his manner of keeping them. Such alterations may be but partial and therefore not readily detected by the doctor.

Let me close this paper with a few suggestions concerning changes in, and the care and selection of some of our medicines.

Chloroform, often so carelessly kept, should be preserved in paper-wrapped bottles in a dark place, for under the influence of daylight or sunlight it is readily decomposed. Ether should be kept away from lights or fires lest an explosion occur. Nitrite of amyl readily escapes from securely sealed vials, if in a warm situation, and under the influence of air easily decomposes, leaving an alcoholic residue. When dissolved in glycerin, as it sometimes is, it slowly splits into fusel oil and ethyl nitrite. Keep it, therefore, in amber-colored vials, stored in a cool and dark place.

Acetate of potassium, a drug in common use with us, owing to its great affinity for moisture, must be kept securely sealed, and should never be dispensed in powder. If to be kept by the patient for an indefinite time, dispense it in a tightly-stoppered vial with instructions if to be used within a few days, a solution may be given, but that this in a short time becomes bitter and develops a vegetative or fungoid growth. This latter phenomenon occurs also in solutions of citric acid and other sour organic acids.

Sodium phosphate, in crystalline form, is very apt, if kept in a dry atmosphere, to lose about one-quarter of its water, and, in warm weather in a closed vial, will melt in its water of crystallization. To avoid this in part at least, in place of the pharmacopœial crystalline salt, the dried granular powder has taken precedence in Eclectic pharmacy.

Sodium sulphite and calcium sulphide should be kept from the atmosphere, lest they absorb sufficient oxygen to form, in the first instance, sodium sulphate or glauber's salt; and in the second, calcium sulphate or gypsum. Likewise sulphurous acid, unless very carefully preserved, by oxidation changes to sulphuric acid or oil of vitriol.

Special care should be taken in the cases of potassium chlorate, permanganate, and nitrate, or in the case of any chlorate, permanganate, or nitrate, that organic matter does not become mixed with them, lest upon rubbing them in a mortar a violent and deadly explosion should occur.

Care should be taken with spirit of nitrous ether, or sweet spirits of nitre. With age it becomes acid, and should not then be employed. It should be kept in a dark, cool place, with the bottle in dark paper and securely stoppered. It should never be administered with antipyrin, for together they produce a greenish, deadly poison.

Ammonium carbonate should not be used after it has become light and chalky. It has then changed into ammonium bicarbonate, its active stimulating constituent—ammonium carbonate, having been dissipated by volatilization. Syrup of iodide of iron may be regarded as a pharmaceutical curiosity. Most substances are best preserved in the dark, but this preparation is ruined by such treatment. Even diffused daylight acts detrimentally upon it. If you would preserve its pale or greenish transparency, keep it where the direct rays of the sun may fall upon it. Should it have liberated enough iodine to color it brown, place it in the sunshine, in full bottles, which will restore its true color. Santonin is liable to turn yellow if exposed to light, while silver nitrate takes on its peculiar blackening under like conditions, a principle taken advantage of in photography.

Certain medicines, in dry form, as in triturations, pills and tablets, become worthless in therapy from the loss of certain delicate principles, which can only be held in bondage in an alcoholic menstruum. Furthermore, tablets are liable, in some instances, to produce mechanical irritation of the stomach, and some of them containing oily substances readily become rancid, as in the case of lobelia and staphisagria.

Lastly, we should be particular regarding the source of our drugs, and also of the kinds of preparations we select. As a rule, medicines of disgusting animal origin should be ignored. We have no sympathy with the passing animal extract fad. A few drugs, of the quality of which we should be especially particular, are the following:

Copaiba balsam, when heated, should not evolve the odor of turpentine, and should produce with one-third part of ammonia water a clear mixture.

Erigeron oil should dissolve in an equal bulk of alcohol, and when old, especially when exposed to air, become thicker and darker in color.

Camphorated tincture of opium should contain true benzoic acid; such an acid is derived from gum benzoin, and not from

the urine of grass-feeding animals. Unfortunately the latter kind is most generally used. Doctors should insist upon having the true benzoin product. When getting salicylic acid or sodium salicylate demand that produced from true oil of wintergreen, and not that derived from the coal-tar industry.

Podophyllin of a yellow color is objectionable, being precipitated with alum and most liable to gripe. The dark gray-brown powder, as originally prepared by Prof. John King, its discoverer, should be preferred.

THE A B C OF THE ECLECTIC MATERIA MEDICA.

FLORENCE TIPPETT TRUAX, M. D., TALLAPOOSA, GEORGIA.

Our homœopathic friends are credited with saying: "Most things come right by aconite," and when we find this label on the first bottle in the case of almost every Eclectic physician in the land, we are prone to believe that there must be some truth in the assertion. The range of action is so extensive that we are sometimes at a loss just where to class this important remedy. We are taught that it is a sedative because it slows the pulse, diminishes arterial tension, and reduces an elevated temperature; on the contrary, we find that it acts as a stimulant to a feeble circulation, increases a weakened action of the heart and raises a subnormal temperature. We know it has valuable antiphologistic properties, for in the onset of all inflammations—mucous, serous and glandular, we have learned to consider it a remarkable agent in all affections of the cardiac plexus. We have proved its advantages as an emmenagogue; we can be certain that it is an anæsthetic when applied locally, so we must conclude that this agent, with its tiny dose, quick results and permanent benefits must occupy an important place in the armamentarium of the Eclectic.

But, if we are to follow the line of thought established by the immortal fathers of our system of medicine, there is no such thing as the classification of remedies, and to the evidence of this truth aconite contributes no small share. The conditions met by aconite are all the same—we find the small, frequent, hard pulse, showing enfeeblement of the heart's action, in the initial stage of all inflammatory diseases, the hot, dry skin, suppressed secretions, and evidences of capillary failure. As Dr. Ellingwood

pertinently asks: "Why should the physician wait till a group of symptoms appear that has a name, when the indications for one remedy are so conspicuous? How many of us have been called to cases where every evidence contributed to the conclusion that inflammation of grave and serious character was an approaching certainty, when aconite promptly met the indications and no fever developed.

As a child's remedy, aconite is unsurpassed, perhaps because the indications are so easily discerned. How often have we found the little patient tossing with pain, buring with fever, unable to sleep or rest, the tiny pulse beyond count, the fever running to an alarming height. And how often has the single indicated remedy, aconite, succeeded, because it meets the conditions present, while a coal-tar product would reduce the temperature and slow the pulse quite as quickly. We have yet to find that coal-tar aborts or dissipates any inflammation now extant. We want to emphasize the fact that aconite is pre-eminently the remedy to be used at the *onset* of inflammatory processes. Its work is this: it diminishes the arterial tension, causing the pulse to change from its hard, quick beat to the slower, fuller stroke approaching right life; it soothes the nerve centers, producing rest and quiet, natural sleep, thereby adding to its lately discovered reputation as a hypnotic, it promotes free diaphoresis, fulfilling the indication; hot, dry skin it retards and antagonizes inflammatory action of any sort or nature, and hastens resolution and promotes absorption of the products of inflammation.

But, when its work is done, let its use be discontinued, as the heart's action may become depressed. We have spoken particularly of the influence of aconite upon inflammatory processes, and will cite pleuritis, pneumonitis, enteritis and peritonitis as examples of the force of this agent upon the different structures of the body. We want now to speak of aconite in two *other* inflammations—tonsillitis and nephritis, as illustrative of its powers upon the glandular structures, if we concede the kidneys to come under that classification. Its action in the former inflammation is so well known that we pass it with only a mention; but in the latter-named disease aconite has proved, with the writer, a sovereign remedy, reducing the high temperature, slowing the abnormally fast pulse, relieving the intense pain in the region of the kidneys and producing a free and copious return of the urinary secretion. In the aged, this remedy seems particularly useful.

In mentioning the action of aconite in glandular inflammations we must not forget to speak of its power in mastitis and oophoritis, and this brings us to speak of its use as an emmenagogue, which it certainly becomes when given upon its direct indication, which we find so generally present in young girls and in those cases where amenorrhea results from "taking cold."

We have become so accustomed to thinking of aconite as a remedy in acute affections, that we sometimes overlook its value in chronic lesions. In angina pectoris, combined with lobelia it seems to specifically meet the tingling, numbing sensations so frequently met in rheumatism; used both internally and locally, its force is plainly seen upon the nerves and the serous structures about the articulations. In neuralgia it is a powerful agent, and in reflex vomiting it is specific, if given upon a direct indication.

The transit from aconite to belladonna is an easy one, since the two agents are strangely synergistic, alike yet dissimilar, a powerful combination, yet in some respects of entirely different action. Both have a salutary effect upon the capillary circulation. Aconite is the remedy for feeble capillary circulation; belladonna the agent for capillary congestion or blood-stasis. Belladonna acts, like aconite, upon the nerves, directly controlling the heart, but, unlike aconite, produces a fuller, faster circulation, and has a profound effect upon the circulation of the capillaries, filling with blood the minutest ramification. This being the case, we have in belladonna a stimulant of the highest character, invaluable in the treatment of all wrong life where the slow pulse, dusky-colored skin and cold extremities denote blood-stasis and capillary congestion. With this line of indications as a leading use for belladonna, we can find an almost endless field of uses for this agent. In all forms of inflammation where resolution is not speedily effected, the congestive tendency is in evidence, and here belladonna is at its best. In all the forms of exanthemata, where the eruption is tardy, delayed, or where a retrocession is the feature in hand, we find belladonna a remedy which covers a field that as yet has not been touched by any other remedy.

While, as with the previous remedy, the field of use of belladonna is largely or rather more popular as an agent in acute diseases, its use in chronic lesions is to be certainly depended upon when the line of indications calling for its administration is present. It is remarkable how often these evidences of wrong life present themselves. Just how a chronic diarrhea or dysentery, a

chronic constipation, a kidney derangement or a menstrual irregularity can give external evidence to our senses and call for, as we believe it does, the administration of a remedy or remedies, we cannot know, but we do know that the administration of these agents cause a restoration to right life, though how these changes appear and disappear may never be revealed.

The action of belladonna upon the glandular structures of the body is so well known that I hesitate to mention it for fear of becoming tiresome. Whether upon the sudoriferous glands, the lacteal glands, or the kidneys, belladonna exerts a specific influence. In this connection I would also mention its value as a curative agent in sterility, presumably because of its stimulant action upon the ovaries. In the aged, the cold extremities, the blue veins and pallid skin call for belladonna and we are often enabled to make comfortable the pilgrims whose feet are nearing the end of the journey. I have found, that in those peculiarly-constituted individuals who do not tolerate belladonna in the tincture form, that the Homoeopathic preparation, in 3 x trituration acts like a charm, giving in the medicinal action of the drug with more of its so-called toxic effect. The third of our Eclectic trio is capsicum, and I almost see the smile which greets this announcement, so old, so very antiquated is this remedy. Had Samuel Thomson done nothing more for reform medicine than to introduce No. 6, we think him entitled to more than ordinary commendation, for the action of this stimulant is so far ahead of most others that we only wonder we do not use it more. This remedy is a pure stimulant, it produces the most rapid capillary determination of blood to the part; if taken into the stomach, it promotes its own absorption and causes its influence to further points through the nerves. It acts also directly upon nerve centers, and is a most powerful though oft-times insidious, diffusible stimulant. Its action is so prompt and general that in a few minutes after it is administered, a comfortable sensation of warmth pervades the entire system, and a certain tonicity is given the muscular, nervous and circulatory systems.

Thus its field of action is a wide one; it is indicated in all enfeebled and relaxed conditions with impairment of nerve influence. In paralysis and paresis, capsicum deserves more than a passing note. We have used it to such advantage in these cases that we think of it now before many of our other more popu-

lar remedies. In the cold stage of delirium tremens, in the treatment of the opium, tobacco and whiskey habits, capsicum plays an important part. In prostrating diarrheas, exhausting fevers and cholera, we have no more efficient agent.

As an adjuvant remedy in atonic dyspepsia, chronic constipation and chronic hepatitis, capsicum is without a peer.

As a stimulant, pure and simple, we have more confidence in capsicum than in our alcoholic preparations, for contrary to them, we have no bad after-effects, when it is necessary to stimulate, as the results of the stimulant. For this reason, in the cold stage of pneumonitis and kindred affections, much may be done to cut short the chill and produce reaction by the administration of this homely remedy. In post-partum chill, we have nothing better than capsicum, in fact, we have come to so rely upon this agent as a panacea for this uncomfortable and ofttimes dangerous condition, that we give it with almost as much routine as we tie the cord or deliver the placenta.

In post-partum hemorrhage, there is nothing more prompt in action than capsicum, when the bleeding occurs from relaxation of the blood-vessels. Its action is so quick, so sure and so permanent that we are inclined to give it credit for some of our rapid recoveries from apparent approach to bleeding to death.

In ulceration of the stomach, the hot infusion of capsicum has wrought wonders. In threatened gangrene from freezing, the local application of No. 6, has saved many a limb from the surgeon's knife. Locally applied to chilblains its use is so common that it needs only a passing mention.

Here are our A B C's, be they stimulant, hypnotic, sedative, or all of these. What is their field of use? Just what we make it, as we use them, day after day, getting good results on old indications, developing new lines of direct action as we study their application further. The future of the Eclectic Materia Medica is in our hands, to add new stars to its luster, to cause to shine with undiminished brilliancy the work of the men who lived to make our school of medicine what it is today, not only through the A B C's of the alphabet, but to X Y Z, etc.

DISCUSSION.

DR. WOLGHMUTH: I wish to say to the members of the association that this is one of the papers that has made a better

impression on me than any of the papers presented in this convention. I can bear the lady out in everything she has said.

DR. PERCE: Concerning any remedy, I desire to make the point that climatic conditions, latitude, etc., has a direct influence upon our medication. I know it to be so on the Pacific Coast. We never there induce an active perspiration. The skin is not so active and as a result the kidneys have additional and compensatory activity, and the remedy therefore has to be different in many instances from what it would be in different sections of the country. Often in removing to that portion of the United States you find that your knowledge of a drug-action does not apply to that section. On the Pacific Coast, if a person becomes constipated the result is quickly apparent. The kidneys take on the extra work of elimination, an autoinfection takes place often as a result of the kidneys being unable to eliminate sufficiently to relieve the engorged system. In practice the conditions do not always present themselves exactly alike and it is necessary that a man shall study not only his individual case but also the portion of the country in which he is located, and it does make a considerable difference in the application of his drugs.

DR. TRUAX (husband of essayist): One thing I wish to add to the symptomatology of aconite, is that we always have a restless, uneasy patient, when this agent is indicated, a patient that is inclined to be fretful. As an old lady said, "He appears to be mighty scared about something."

DR. LINBERG: In speaking of aconite, while one of the most important remedies in sthenic fevers, it is often to be used in asthenic fevers with depression, but in a minute dose.

LOBELIA.

GEO. W. BOSKOWITZ, M. D., NEW YORK, N. Y.

The therapeutics of lobelia are so closely identified with the evolution of Eclectic medicine, that it seems presumptuous at this late day to think that anything new can be said about this valuable drug. I do not pretend to be able to tell you anything new about it, but I desire to call your attention to its action in a few conditions not often spoken of, perhaps forgotten by many

in the hunt for new remedies. I can better bring its wonderful action to your notice by reporting a typical case under each of the following separate headings:

Lobelia in biliary colic.

Lobelia in urethral stricture.

Lobelia in certain forms of dyspepsia.

Lobelia as an antiseptic and healing lotion and in whitlow or felon.

LOBELIA IN BILIARY COLIC.

Mr. A. B. had been a sufferer from repeated attacks of biliary colic for some years, had a very severe attack in 1901 so that for the relief of the pain he had to take about two grains of morphine per day. After consultation with some of New York's best men it was decided that an operation was imperative. At this stage, through the intervention of Dr. Clara Freeman of San Francisco I was called in, and knowing what lobelia had done in similar cases, I said I believed I could relieve the patient without an operation—and that I could present proof in twenty-four hours. I was ridiculed by the attending men who were firm in their belief that an operation was necessary—and that without much delay—but the patient and his wife decided to postpone the operation forty-eight hours and give me a chance to try. The mixture of lobelia two drams, pruni virgiana two ounces to four ounces of water was administered in dram doses every two hours. The patient took but one dose of his morphine mixture after taking the above prescription, for in a few hours he was relieved of all pain—and passed with his stools quantities of calculi, some of them being quite large. He has had one or two slight attacks since, always getting relief from a few doses of the above mixture.

LOBELIA IN URETHRAL STRICTURES.

The following case was reported in Vol. XVIII. of the New York State Transactions:

Mr. G——, about 40 years of age, had had gonorrhea twice, the last time about three years ago. This had left him with a slight chronic gleet. For about one year he had had difficulty in urinating, the stream being small and twisted, passing slowly and without pain. The difficulty in this respect had been growing worse every day until the time he called upon me his urine

simply dribbled, a drop at a time. It would take him half an hour to empty his bladder, and there was considerable pain.

He had consulted several physicians and they had attempted to pass sounds without success and these attempts no doubt accounted for the irritation and the pain which the patient was experiencing while urinating. Learning that those who had attempted to pass the sounds previously had used the cold sound, I warmed mine, anointed it well and made the attempt to pass it but without success. For two weeks I had the patient call every other day and made the attempt each time to pass the sound. I could not even pass a filiform bougie. The patient was getting discouraged. I cheered him as best I could, telling him as I had several times before that I had no doubt that at the next attempt we would be successful and we were. At his next call before attempting to pass the sound I dropped into the urethra about 15 drops of fluid extract of lobelia, closing the meatus and held the lobelia in the urethra for five minutes. It produced a smarting sensation which passed away in a very short time. I now prepared my sounds and was delighted to find that I could pass a No. 10 with little difficulty. I continued this treatment twice a week without producing any urethritis, gradually increasing the size of the sounds until I could with ease pass a No. 24. The patient can now pass his urine normally, has no gleety discharge and I have not passed the sound for two years. I see him frequently and know that he has had no return of the difficulty.

Since treating Mr. G—— with the lobelia injection I have tried it on quite a large number of cases and with success in all of them.

LOBELIA IN DYSPEPSIA.

Mr. B—— had suffered for many years with distress after eating, not directly after, but in from one and one-half to two hours after—a distress just above the umbilicus, which increased in severity at times so as to wholly incapacitate him for work. He had tried many physicians, had had his stomach washed out regularly for months, but with but slight temporary relief. I prescribed ten drops of lobelia to four ounces of water and gave one dram every two hours with almost immediate relief.

In that distressing and painful condition known as whitlow or felon, in its early stage the direct application of lobelia will relieve the pain and prevent suppuration. Its application for

twenty-four hours is sufficient to cure most cases. Before closing this paper I wish to refer to a combination of lobelia baptisia and zinc sulphate, which we use in our dispensary as an antiseptic and healing lotion, to one ounce each of the above-mentioned drugs enough distilled water is added to make one pint. This is then filtered and is ready for use. We believe it is a superior antiseptic lotion not only for wounds but for inflammation of all mucous surfaces.

DISCUSSION.

DR. HENDERSON: This remedy should have an important place in the treatment of appendicitis. In the early stages an enema consisting of lobelia and olive oil will relieve many cases, and it will knock the surgeon out of a good many fees.

DR. PICKETT: Twenty-seven years ago I had a case of atonic vomiting, in which the patient could not raise her hand or make any move without vomiting and retching. I did not know what to do and I fell upon the thought that Scudder had brought out that small doses of lobelia were stimulating. I gave less than half a drop of the specific tincture and controlled with that a case which I could not control any other way. In cases of pregnant women, where it seems to depend upon an atonic condition, in small, stimulating doses it will relieve that condition better than anything I ever tried. Try it and see what you think of it.

DR. CRAWFORD: I have used it for many years in cases of felon. I take equal parts of lobelia and ammonia and put in large-mouthed bottle and introduce the finger and leave it there until the pain subsides. I have used it with equal success in cases of snake bite. I then apply sweet oil on a cotton bandage. It is also good in insect bites.

DR. WILMETH: Dr. Boskowitz spoke of the use of lobelia in urethral difficulties, in stricture from pressure or spasm. He would not use it locally as he would use it internally in intestinal catarrh as indicated by pain a few hours after eating. The dosage necessary in the latter case would be very small—ten minims to four ounces, in dram doses. Much depends upon exact dosage.

DR. THOMAS: A physician is often called on for a lotion for the hands and face. Some have cracked or chapped hands.

One of the best lotions for the hands or face is—one ounce of lobelia, one ounce of glycerine and two ounces of water.

You will be surprised how soft the hands will be if thoroughly washed and dried and this lotion rubbed on immediately.

DR. KRAUSI: I emphatically endorse what Dr. Boskowitz has said in regard to stricture. There is nothing in the whole list of ills the diseased human being is heir to that is so discouraging as urethral stricture, where they are unable to pass the water, simply a drop at a time. It will bother you to relieve that condition, whether the stricture is in the membranous portion of the urethra, or in the prostatic portion, or at the neck of the bladder, but lobelia will give results in a short time. It will not cure stricture, but it causes a relaxation of that stricture to enable you to pass your sounds.

THE RELATION OF CONIUM AND HYDRASTIS TO THE MAMMARY GLANDS.

HERBERT T. WEBSTER, M. D., SAN FRANCISCO, CALIFORNIA.

Knowledge of the specific action of conium upon the mammary gland considerably more than antedates the earliest history of Eclectic medicine. Hahnemann, in 1818, published an account of the therapeutics of this drug, including, among other reputed properties, its action on the breasts. Even then, however, this was not a new idea; Dioscorides was aware of it in his time, and employed poultices of the fresh plant to prevent undue development of the breasts in young girls, and Pliny and Avicenna recommended poultices of conium and corn-plaster for the removal of mammary tumors.

Dunham, in his work on Therapeutics, is emphatic concerning the prompt action of this drug in the cure of non-malignant tumors of the mammary gland, asserting that he has numerous times removed such growths from the breasts by its internal or specific use; and his testimony is supported by that of many other physicians of his school.

But our own school offers some testimony on the subject, though older authorities are silent. Ellingwood's Materia Medica and Therapeutics mentions the application of this agent to diseases of the breast, as also does the last edition of the American Dispensatory. Dynamical Therapeutics will be found to contain reference to the subject, though the author was not as well confirmed in the value of the remedy from personal experience at

the writing, as at the present time. Even that staid representative of conservative therapeutics, the National Dispensatory, recognizes the specific affinity of the agent in this direction.

Perhaps one of the most practical uses made of it is its application to painful fullness of the mammary glands about the mentrual period, a complication to which quite a number of females are subject, and one so unpleasant sometimes as to demand effort for its amelioration or relief. Few agents apply so well to this condition as conium.

Though hydrastis is an old Eclectic remedy, we are compelled to admit that knowledge of its action on the mammary gland came to us second-hand. It has long been employed in certain quarters as a remedy in mammary cancer, at least since 1863, and has some cures to its credit, though there is much doubt about its power in actual cancer. Possibly, at a very early period of mammary cancer, before malignancy has become very much developed, we may find some remedial action in it, but we should be more than satisfied with its power to remove benign mammary tumors; for these may be the forerunners of malignant disease, and prevention is "just as good" if not better than a cure.

In 1863 Drs. Marston and Maclimont reported some remarkable success with hydrastis in mammary tumor. Among the cases referred to was one which was so striking that I will quote the report, since it has an application to the subject in hand:

"Mrs. F. had suffered for six months from a swelling in her left breast, for which she sought relief. The pain, which was compared to knives being thrust into the part, had become almost unbearable, and the patient was already beginning to assume that worn appearance so characteristic of the cancerous diathesis. The tumor, which had attained a considerable size, was hard, heavy and adherent to the skin, which was dark, mottled, and very much puckered, the nipple being also retracted. The patient was advised to come into town for the enucleation of the tumor. This, however, the circumstances prevented; and without any expectation of affording much relief, a lotion of hydrastis was ordered, with the internal use of the same medicine. The pain almost immediately ceased, and the tumor so speedily decreased in size that at the end of two months it had altogether disappeared, leaving but the puckered skin, which had otherwise regained its natural appearance. When we last heard of this pa-

tient she continued perfectly well. It is needful to state that her health rapidly improved during the treatment, and that her countenance regained the aspect of health."

I doubt that many cases of cancer will ever be cured with hydrastic, for the remedy has been so thoroughly tested in certain quarters that a reputation ought to be established for it now, if it is entitled to one. However, in my hands, it has entered into a combination which has proven very reliable in mammary tumors of benign type, and even in some which manifested symptoms suggesting malignancy, though it has proven curative only in the very early stage. If it possesses much virtue in mammary cancer it must be in prevention, not in cure after malignancy has become well established. I will here offer report of several cases which have been under my notice, and which have been treated with a combination of conium and hydrastis. Possibly conium alone might have accomplished as much as the combination, though I give hydrastic credit of at least improving digestion and assimilation in cases attended by cachexia.

In 1880 Mrs. G. applied to me for treatment for a growth in the left breast. The tumor was not painful nor sensitive to touch, nor was there any marked retraction of the nipple to suggest malignant disease, but a history of cancer in the family rendered the presence of the growth very disquieting to the patient and her friends. The growth was near the size of a hen's egg, situated beneath the nipple, and considerably denser to touch than the surrounding tissues. It had been several months in developing, and the subject had gradually failed in health until she was weak, nervous, dyspeptic and sallow. She was of lymphatic temperament, and about 45 years of age.

In those days surgical measures were not accepted by the public as readily as at present, and no such idea as that of an operation would be listened to by either the patient or her husband. The question was: could anything be done without? I knew of the reputation of conium and hydrastis in such cases but had never tried them. I proposed that I have three months to try, and having been granted the request, prescribed specific conium two drams and specific hydrastic two drams, to eight ounces of vehicle, consisting of water with enough alcohol to preserve. Of this the dose prescribed was a teaspoonful four times daily; before meals and at bedtime.

On this treatment the general health improved the first

month, though no noticeable change had taken place in the mammary growth: At the second month it was found, however, to have lessened considerably in size, and by the end of the fourth month it had disappeared. The general health of the patient was now good, and I learned, from her own lips, ten years later, that she had remained free from any symptoms of disease of the breast, and had enjoyed average health in the interval.

In 1890 Mrs. W., more than 80 years of age, applied to me for relief of pain in the right breast. It was lancinating, and so severe as to prevent sleep at night. The patient informed me that her breast was shrunken and hardened. An examination revealed retraction of the nipple, fixedness of the mammary gland to the wall of the thorax, and general hardening of the breast. It was a typical case of scirrhus breast, and I could offer no hope of permanent relief, to the son of the patient, who had brought his mother to me, and who desired to know the worst. However, I undertook to ameliorate the intense pain, that rest at night might be enjoyed, and prescribed half an ounce each of specific conium and specific hydrastis in a pint of vehicle, to be taken in teaspoonful doses four times daily. In a fortnight the pain was much relieved, but not entirely gone. Echinacea had then but recently come upon the stage as a remedy for cancer pain, and I decided to add it to the treatment. Half an ounce of echinacea was therefore added to a pint of vehicle and alternated with the combination of hydrastis and conium, a teaspoonful four times daily. The pain almost immediately ceased, and the patient afterward, so long as she continued the remedy, enjoyed good sleep at night, a good appetite, and perfect digestion. The malignant growth progressed slowly, but the patient lived more than four years afterward, finally dying from arterial hemorrhage from a small ulcer that had opened at the side of the retracted nipple. Several times she became disgusted with the idea of continually taking medicine and stopped it, but was compelled, on account of the severe pain, which invariably returned in a few days, to continue treatment.

In 1892 Mrs. F. applied to me for examination of a hardened lump in the left breast, which had appeared a few months before. She was about the menopause, and her mother had died with cancer of the breast about this age; consequently, though her general health was good, she was anxious to have something done about the abnormal growth. The tumor was about the size

of a walnut, located near the nipple. It had been noticed about a year before, and had been slowly increasing in size. The patient's general health was fairly good, except that much mental depression was present as a result of the threatening morbid growth. The tumor was neither painful nor sensitive to pressure. Conium and hydrastis dispelled the growth in less than four months, and five years later I learned that no further symptoms of mammary hardening had been noticed.

In 1900 Mrs. S., an old patron, called upon me for treatment for tumor of the breast. A hardened lump had recently developed in the right breast, which manifested some symptoms of malignancy. The patient's complexion, which was naturally clear and rosy, had become sallow, and her countenance had assumed a haggard, worn expression, and she complained of debility and loss of spirits. The tumor was not much larger than a walnut, and was located under the nipple, or slightly at one side, but it appeared to be adherent to the skin, which was somewhat puckered at that point, and there was tendency to retraction of the nipple. I regarded this case with considerable apprehension, though no pain attended. The prescription of conium and hydrastis already described was ordered for this case, and persevered in for more than four months. Finally, all traces of the morbid growth had disappeared, and the patient was restored to her former condition of good health and clear complexion.

These are by no means all the cases in which I have given the remedies named a trial, but not all have persevered in treatment until results could be positively stated. In these piping times, with all kinds of doctors and all kinds of beliefs about, chronic cases drift about like straws before the wind, in many instances, and not every one ever has a fair trial at any hand. I believe, however, that in these two remedies we have nearly a specific in new growths of the breast of benign nature, especially if they appear about the menopause. Which one deserves the most credit it is difficult to decide, from my experience, though if I were to depend upon a single one of them I certainly should choose conium. However, hydrastis adds considerable to the quality of the prescription, in its ability to promote digestion and assimilation, and restore general health. I believe the selective action of conium to be the active element in the removal of the local lesion.

As no local application was made in any of the successful

cases I have reported, there can be no doubt as to the specific action of the internal agents. If the medicine did not cure, what did?

HYOSCYAMUS AND STRAMONIUM.

JOSEPH S. NEIDERKORN, M. D., VERSAILLES, OHIO.

The value of these remedies cannot be appreciated unless they are employed in practice, and to determine their exact therapeutic field requires a thorough familiarity with the many details which go to make direct medication a pleasant, successful and scientific study. These are not remedies that can be employed indiscriminately and a successful issue expected from such manner of prescribing, but each in its own place will prove, with positiveness, just what it will do and do it pleasantly. Whilst they possess similar properties, both being powerful narcotics, yet each one will do what the other will not do, and neither can be substituted for the other, at least should not be.

Hyoscyamus has the wider range of application, but the field of application of stramonium is by no means so limited as is commonly supposed. In my opinion hyoscyamus and stramonium are two of our best delirium remedies; and for the specific medicationist, the study of each for its therapeutic position is certainly interesting and will prove quite entertaining.

Hyoscyamus is indicated in any case where there is busy delirium, muttering, the patient constantly busy during delirium, will answer questions but soon goes off into his wild talk; patient seems sleepy but will not sleep; has a wild look and restless eyes, and if he has been violent in his delirium, the low muttering form soon takes its place and perhaps increases to almost complete unconsciousness, but still busy. If there is fever, the face is flushed, there are sordes on teeth and tongue. In delirium tremens I believe it will give best results where the delirium is not so active but assumes a muttering character. The wild, furious delirium needs stramonium, and, in my opinion, here is where the distinction between these two great remedies comes in. The stramonium patient is enraged, furious, wild, loud, wants to destroy himself or anything or anybody, and it is surprising how long and well his strength perseveres. It does seem that these two remedies plainly show what it means, to get physiological action

and the therapeutical effect of a drug. Just recently I had it proven what stramonium can do with a furious delirium in delirium tremens. I thought my remedies were well selected, still my patient kept his four attendants busy, with no signs of any effect from my remedies. Stramonium soon proved its effect and brought about tranquillity and sleep.

The chief distinction between these remedies can be briefly said to be as follows: Hyoscyamus for a low, muttering delirium, and stramonium for a wild, furious delirium; of course the many other details going to assist in making a more definite distinction.

The dose of either should be small. It is my custom to add eight or ten drops of specific hyoscyamus to four ounces of water; mix, and give a teaspoonful of this mixture every twenty minutes to one hour. Stramonium I usually prescribe in the proportion of fifteen drops of specific stramonium to four ounces of water. Mix, and give a teaspoonful of this mixture every half hour.

Opiates, sometimes, are a good thing; but to administer them without due regard for our patient is a practice to be discouraged. Hyoscyamus and stramonium, when they are distinctly indicated, will prove their superior merits, and the pleasant recoveries following their exhibition will go far to prove their worth.

HYDRASTIS CANADENSIS.

PITTS EDWIN HOWES, M. D., BOSTON, MASSACHUSETTS.

Hydrastis Canadensis or Golden Seal, is among the best known of Eclectic remedies. It is indigenous to the United States and Canada but is found more profusely west of the Rocky Mountains. The first knowledge of its use was obtained from the Aborigines of this country, they making large use of it in their medical compounds. While it has been used quite extensively by the Eclectic and Homœopathic schools, the Allopathic writers, with the exception of Bartholow, have had very little to say concerning its therapeutical use. The knowledge obtained from the Indians was made use of by the fathers of Eclecticism, both to the benefit of themselves and their patients.

Hydrastis canadensis acts very largely upon the entire mucous surfaces and can be used advantageously in all inflamma-

tions of these parts which are not chronic. Nasal catarrh, catarrh of the stomach and intestines, are frequently benefited by its administration. Its uses along these lines are so well known among Eclectic practitioners that I will not go into detail at this time. Its action upon those stomachs which are anemic in condition, thereby containing constantly more or less of a mucous exudation, should not be lost sight of when preparing medicine for these conditions. The addition of hydrastis to stomachic tonics, will prove of great benefit. The more chronic the case, the smaller the dose, the less frequent its repetition and the longer its continuation. Hydrastis, when added to cathartic agents, has proved very effective in removing those causes of constipation which have been dependent upon an anemic condition of the patient.

There is one use of hydrastic which may be new to some of my readers, which I regard as very valuable. I refer to its use in the treatment of fibroid growths, either extra- or intra-uterine in their position. The experience which I have had with this remedy in these conditions leads me to believe that where it is resorted to sufficiently early it will cause the use of the knife to become unnecessary.

My method of using it in the above condition is as follows: Make a tampon of absorbent cotton that will fill the vagina fairly well, saturate this with a solution which is composed of equal parts of hydrastis and glycerine and pass it up as high as possible, resting against the posterior part of the neck of the uterus. The second tampon, unmedicated, should be placed in the vagina so as to retain all of the moisture that is possible. These tampons should be used night and morning after a douche of water as warm as the patient can bear. The douche should be given in such a position as will keep the vagina filled during its continuation.

In making use of the hydrastis and glycerine in the manner aforesaid, we cannot always start with the two agents in equal proportion. Very often I commence by using one-quarter or one-third of the glycerine to three-quarters or two-thirds of the hydrastis. The action of the hydrastis upon the fibroid growth seems to be through the blood vessels. The blood is enriched through the tonic qualities of the hydrastis, thereby rendering it more active in dissolving and carrying away the foreign growth. The addition of the glycerine causes the exudation of the water

which is contained within the fibroid, and thus renders it more dense and compact.

The methods of diagnosis which the physician of today has at his command renders detection of these growths comparatively easy, even when they are slight in extent. The method above described will be found better suited to those fibroids which are from the size of an orange to those of a small hen's egg. In these cases much benefit can be derived many times, the growths being rendered of little or no inconvenience to the patient.

Even those growths of large size and complicated by excessive hemorrhages, may be controlled by means of this topical application, together with the correct internal treatment. Thus the patient may be carried along until the period of the menopause is reached, when, if an operation becomes imperative, it can be performed without the nervous collapse which is so frequently encountered among younger women.

If I have succeeded in calling the attention of the members of the profession to the use of this old remedy in this new method, the object for which this paper has been written will have been accomplished. All new uses of our older remedies need to be demonstrated many times before they can be accepted as reliable, hence I would ask those among my professional brethren who may make use of hydrastis in the way stated, to communicate the results which they obtain, to our various medical publications.

PHYTOLACCA.

KENT O. FOLTZ, M. D., CINCINNATI, OHIO.

This drug possesses a direct action on glandular structures. The old nomenclature of alteratives, tonics, etc., is very like the nosological classification of diseases, and is not only misleading in many respects, as it conveys the idea of disease as an entity and a drug as a combating agent to this entity. Under such circumstances it is not surprising that research and a careful study of drug action on embryological structures has been hampered. In Phytolacca we have a drug that possesses a definite action on glandular structures, and incidentally through this action on the surrounding tissues. It does not seem to be confined to any one class of glands, but excepting in cases of sluggish lymphatic cir-

culation, the results are positive, provided, of course, there is any material that can be influenced.

When the glands have become atrophied or there has been considerable hyperplastic material formed, it is not reasonable to expect decidedly marked results.

In simple inflammatory states, especially of recent origin, the action is reasonably prompt and certain. In acute or subacute inflammation of the pharyngeal or faucial tonsils, and even lingual tonsils, phytolacca will have a decided effect. In diphtheritic affections the drug is valuable in exciting the glands of the mucous membranes to a nearer normal activity, causing the membrane to be less adherent.

In chronic rhinitis and often in acute rhinitis, phytolacca is the basic remedy. In atrophic rhinitis and atrophic pharyngitis, the quality of the secretions from the unaffected glands is much improved, the gland being stimulated, not over-stimulated, by the drug action. In laryngeal diseases where the character of the secretion is abnormal we again think of this drug. In fullness of tissue about the openings or along the course of the eustachian tubes, phytolacca will afford relief. In swelling of the lymphatic glands, this often is the only remedy required.

In eye and ear work the drug is less often employed, still there are conditions in which the mucous follicles are greatly benefited by its use, the same general characteristics being present, modified somewhat on account of location, as prevail in diseases of the mucous membranes of other regions.

Combinations with other drugs have not been mentioned, as while often an aid, their action is usually directed to some other prominent indication.

The preparation of phytolacca employed is of the utmost importance. A poor drug is always cheap, and also expensive, on account of the disapointment following its use. Any preparation from the dried root is not only unsatisfactory, but practically inert. The tincture prepared from the fresh root will always give results in cases which are amenable to treatment.

Dosage.—This is a matter of the utmost importance. It is as necessary to prescribe the drug in the proper dose, as it is to recognize the conditions calling for it. I believe in the majority of acute cases, the dosage is too small. Many persons report failure from phytolacca, but on inquiry the dose has been too small to get effects. In parenchymatous tonsilitis, for instance,

the dose will usually be from ⅓ to ½ drop and complaint is made that no results followed. In my experience I seldom use less than from two to three drops every half hour or hour, in children, while in adults frequently five drops are employed.

In chronic cases the large dose of course is not required, but it is seldom that less than gtt. j doses are given. The usual directions of adding x or xv gtt. of tincture to a half glass of water and giving a teaspoonful of the mixture four times a day, will lead to disappointment in a large majority of cases.

DISCUSSION.

DR. BEST: We have a no more valuable remedy than the one this able paper just speaks of. I heartily concur with what he says in regard to the dosage. We do not give enough or frequently enough. In acute tonsilitis if you will put at least half a dram in a four-ounce mixture for an ordinary case in a child not too young, you will get prompt results. It is one of the most positive remedies in tonsilitis I know of.

DR. GEMMILL: In college I learned one of the remedies for cracked nipples was glycerate of tannin. That was one of the things that disappointed me. One of the physicians recommended phytolacca, one dram; bismuth, one dram in a half-ounce mixture. The bismuth will settle to the bottom. Shake it up and it makes a milky mixture and it is good for cracked nipples. Apply this immediately after the child has nursed, and then be sure the nipple is carefully wiped off with warm water.

DR. SHERMAN: I would ask if the doctor gets any bad effect from the large dosage of phytolacca—is there any cathartic effect? Five drops every two hours will not produce catharsis.

DR. HAMLIN: I want to add my commendation to that grand old remedy. I deem it one of the best agents we have. It will be found especially valuable in the treatment of scarlatina. I use it and aconite almost wholly in this disease. I have had a reasonable experience with the disease and the drug, and have not lost a case. I have not had that sequalæ of this disease that so often follows, such as abscess of the glands, and deafness. I give it at the beginning of the disease. I give plenty of it. I give 20, 30 or 40 drops in a four-ounce mixture, with a child up to six years of age. It will not be necessary to do as my good Allopathic friend was doing not long since: bathe the little fellow in cold water every three hours, to keep the temperature down.

I was later called in to lance an abscess. If you give phytolacca you will not have that to do. I have found it a splendid remedy in cases of sore throats. Where you suspect diphtheria, don't forget phytolacca and minute doses of aconite. My great difficulty has been that we get too homeopathic in a great many of our remedies, and when we think a remedy is indicated we give 10, 15 or 20 drops in a four-ounce mixture, and the patient does not improve and we conclude we have made a mistake, and look for another remedy.

DR. YOST: Living in the Allegheny Mountains, where phytolacca is used universally, I have a good deal of occasion to use it, and I want to speak in regard to the dosage. It is used in Virginia for almost everything. I find if a good result is to be expected, we must use a larger dose than that ordinarily given.

DR. BAKER: I fully concur in all that has been said, but I wish to add for secondary syphilis or the tertiary form, the compound tincture of lobelia and phytolacca is as near a specific as we have found. I have mentioned this before in this Association. Secure the tincture from Prof. Lloyd, and for sore throats and conditions of that kind, in connection with aconite and glycerine and one drop of wintergreen. Let the patient have it in his vest pocket and touch to his tongue and it is almost sure to cure. My wife was subject to quinzy in her early life, and she has never had a touch of its since using this. I have had a great many cases during a long practice and they are always broken up or arrested by this treatment. As to the combined lobelia, you can do a world of good with it. Press it until they feel the tremulous effect. I have had cases under mercury and iodides for years and have succeeded in curing them or modifying them so that they had no further trouble while under my observation.

PIPER METHYSTICUM.

S. M. SHERMAN, M. D., COLUMBUS, OHIO.

This drug which is also called Kava Kava, is one which I think has been much neglected. Many practitioners do not use it at all. It is recommended by Webster very highly in neuralgia of the fifth pair and it is therefore useful in neuralgia of the eye; ear and teeth. He says it is good in neuralgia of the stomach and

intestines, in fact he places more stress on its value in neuralgia than in anything else. This use of it I have not verified. He recommends it in gonorrhea and genito-urinary troubles generally, and also claims some aphrodisiac properties for it.

Our allopathic friends use it under the name of kava kava, in gonorrhea, and I have known some of them to prescribe it in such cases as a wonderful new remedy which was very difficult to procure. " They would have to send to New York for it," but perhaps this was only to impress the patients with the idea that they were being treated with the greatest scientific care.

Ellingwood says of this agent: "Its specific therapeutic value depends upon its influence on the mucous membranes of the genito-urinary apparatus." It certainly is an excellent remedy in cases of irritation and inflammation of those membranes, but I believe its influence on the gastro-intestinal tract is fully as pronounced. I have seen patients taking this medicine relieved of dyspeptic symptoms and develop a good appetite and keen relish for food, while the urinary trouble was being overcome.

I will not further repeat what our works on materia medica and therapeutics have to say about piper methysticum, but will say that the purpose of my paper is to describe a case which I find is benefited by the use of the remedy. A patient will complain of derangement of the urinary organs, either of scantiness or of irregularity of the flow, sometimes not enough, at other times too much. The patient's face looks full, somewhat pale, all the tissues seem slightly edematous. The feet and the legs more so. The tongue is full and pale, the bowels may be regular but the appetite is not good. The patient feels languid, says he has to force himself to get around, in fact he presents an appearance that suggests Bright's disease, and yet an examination of the urine fails to show the characteristic signs of that disease. Really no organic disease seems to be present.

Now if you give this patient twenty or thirty drops of specific piper methysticum in water four times a day, he will, in a couple of weeks, show a decided change for the better, and in two or three months will become well and strong.

The urine will be passed more freely and satisfactorily, the appetite will become good, sometimes exceedingly so, the patient's color will resume its normal healthy tint, the tissues will become firm and elastic, and a general wellbeing will be experienced.

He is cured.

DISTILLATE OF HAMAMELIS—A GOOD MEDICINE.

A. F. STEPHENS, M. D., ST. LOUIS, MISSOURI.

Hamamelis is a remedy which deserves more praise than it receives, and it is doubtful if its true value is really appreciated by the profession. A few of its uses as I have found them are here given.

The remedy has proven of the highest value in the treatment of passive hemorrhages from whatever source, such as nosebleed, hemoptysis, hematemesis, hematuria, menorrhagia, etc. For uterine hemorrhage following abortion, or post partum, after a labor at full term, the remedy has proved of great advantage. The same favorable results have been obtained in bleeding from the nose, from the lungs and from the stomach. In all of these difficulties I have used the following combination:

℞ Fl. ext. ergot.....dr. ii
Dist. hamamelis .....oz. ii

M. S. One teaspoonful every half hour until the hemorrhage is checked, then every hour or two as long as may be deemed necessary.

A troublesome difficulty wherein hamamelis exerts a positive and favorable influence, is that of hematuria, and in passing I would call your attention to this remedy in the treatment of diseases of the kidneys marked by the presence of albumin or sugar. For hematuria, hamamelis is used as in the prescription given above. In Bright's disease and glycosuria it is to be given in combination with chionanthus virginica, as follows:

℞ Specific chionanthus.....dr. ii to iv
Dist. hamamelis q s ad.....oz iv

M. S. One teaspoonful every three hours.

To illustrate: Mr. P., while working in the harvest field, was struck by lightning, which caused him to fall unconscious to the ground. He remained unconscious for several hours. On voiding his urine it was bloody and he continued to pass much blood for the two months intervening between the time of the accident, and that at which I first saw him. During this time he became jaundiced, emaciated and debilitated. When I first saw him he was compelled to pass his urine every few minutes, and suffered a great deal of pain at the time. The urine was thick with blood. Urinalysis gave evidence of a large number of red

corpuscles present; also albumin and some casts. The presence of blood suggested hamamelis, and the condition as evidenced by the jaundice suggested chionanthus. He was therefore given the prescription as outlined above with the result that in two weeks the blood had almost entirely disappeared from the urine, the jaundice had cleared markedly and the patient showed a general improvement.

At the end of two months' treatment, the blood had entirely disappeared from the urine, which was now voided normally as to amount and time, as well as to constituents. After three months the patient returned to his home and work. It is now two years since the accident happened and only twice in that time has he developed a slight hematuria, which the remedy always stops almost immediately. When this case was turned over to me by a professional friend who had treated him for a month, it was with the thought that the patient could not live.

In diseases of the rectum the remedy is of great value and will please both the patient and doctor. Ulcers, fissures, and piles will be benefited by its administration. In many cases they will all disappear if the remedy is persisted in. In these difficulties the remedy is to be given internally per mouth, as well as by rectal injection. For internal use it is to be combined with collinsonia as follows:

℞ Spec. collinsonia.....oz. ss to j
Dist. hamamelis.....oz. iii
Cascara arom. .....oz. ss
Aquae dist. q s ad.....oz. vi

M. S. One teaspoonful every three hours. Inject into the rectum the following:

℞ Dist. hamamelis.....oz. iv
Acid, tannic .....dr. j
Glycerine .....oz. iss
Aquae q s ad.....oz. viii

M. S. Inject one ounce of the solution into the bowel at night, and morning, after washing the rectum with a pint of saline solution to cleanse it.

In chronic diarrhœa and colitis, hamamelis and epilobium will give good satisfaction. Use one-half ounce of spec. epilobium to three ounces distilled hamamelis, together with enough water to make the mixture measure six ounces, giving a teaspoonful every two to four hours, as may be required by the urgency of the case.

A favorite prescription of mine for gonorrhea in the male is a follows:

℞ Sulphate of zinc.....gr. x
Fluid hydrastis (non-alcoholic).....dr. iv
Dist. hamamelis.....oz. iii
Aquae q s ad.....oz. vi

M. S. Inject a small quantity into the urethra three times a day, using a warm douche at least once a day to thoroughly cleanse the urethral tract. This prescription will be found most beneficial after the acute stage has passed.

Witch hazel is an excellent remedy for local use in bruises, sprains and cuts. A solution of hamamelis and echinacea in the proportion of one ounce of echinacea to five ounces of hamamelis applied on compresses and the part kept wet with it for twenty-four to forty-eight hours, will relieve the pain and soreness, reduce swelling and keep down inflammation in cases of injury to the soft tissues. Barbers have learned that it is an excellent application to the face after shaving and it enters into many of their preparations.

This does not tell all that is to be told about this old remedy, witch hazel, by any means, for it is a remedy of much value. It ought to receive renewed attention and will many times repay the careful investigator.

PULSATILLA.

J. PAUL HARVILL, M. D., NASHVILLE, TENNESSEE.

In Stephen's Materia Medica, a book that has been advised for Eclectics to study, recent edition, third, 1903 edition, he says of pulsatilla: "As a therapeutic agent it is of little value." I cannot understand how such an expression can come from a man proposing to write a Modern Materia Medica. There may be remedies in our Eclectic Materia Medica with indications that are mythical and not to be relied upon, but that pulsatilla cannot be so classed, is beyond question.

Pulsatilla is a perennial flower and grows in the high, sandy and dry portions of Europe. It is known, also, as meadow anemone and on account of its growing on the elevated lands, where it is exposed to the prevailing winds, it is called wind flower by

the natives. The whole plant is used in medicine. I have never used any form except the Specific Medicine.

Pulsatilla in large doses will lessen general sensibility and will produce hebetude, dilated pupils and coma in toxic doses. Taken in the mouth it produces a similar effect to aconite. It should never be used in large doses. In medicinal doses it increases the cerebral function and gives tone to the sympathetic nervous system.

This remedy has a specific effect upon patients who are inclined to look on the dark side, when not caused by financial or social discord. We think of this remedy in the mild, gentle, discouraged patient, one that weeps while trying to relate her symptoms. The patient will often present a confusion of symptoms, often contradicting herself. She will magnify this symptom now. Again, she will magnify another. Finally she, in her confusion, begins to weep, and says, "Doctor, I suffer so much, and everything seems to go wrong; I don't believe I will ever be any better." Persons with light and sandy hair, blue eyes, inclined to silent grief, with submissiveness are cured by this remedy, as if by magic.

Pains, whether rheumatic or neuralgic, shifting from one part of the body to another, or a changeable disposition, should be considered an indication for this remedy.

The patient weeps: now irritable, now pleasant. In these conditions pulsatilla should be given with confidence. In metrorrhagia, where the flow comes and goes at short intervals, this is a most excellent remedy. Miss H. came into my office several years ago and told the following story: "I have been unwell for several years with short intermissions, and I have tried may physicians in hope of effecting a cure, and my old family physician has treated me locally for several months, but without relief. I have despaired of ever regaining my health." Here she began to weep. Upon questioning her, I found that despondency had been a constant symptom from the beginning.

The indication for pulsatilla was so pronounced in her case that I gave it alone, in one drop doses every four hours.

Within three months she was so much improved that I felt sure the treatment would result in a complete cure. The pulsatilla was continued, and at the end of the fifth month, she had her natural menstruation, and she has been regular ever since, for seven years at least.

I have had good results from this remedy in hysteria. It has a beautiful effect in orchitis, and spermatorrhea. It allays irritation of the prostate gland. During pregnancy, if the patient be despondent, with a general atonic condition, this medicine should be given.

Urinary disturbance of the pregnant state are often promptly relieved by pulsatilla. As a partus preparator, together with macrotys it is indispensable. It not only facilitates labor, but its after effect is wonderful. I use pulsatilla and nux vomica combined, in stomach stroubles, with splendid results. There is no remedy that braces the action of nux vomica more than pulsatilla.

Dr. Curryer gives the following as choice symptoms for pulsatilla: "In diseases following badly managed measles, in metastasis of gonorrhœa, or mumps, to mammæ or testicles, cystitis, periodical headaches in which pressure relieves, chilliness with pains, yet where coolness is more agreeable than warmth, one-sided sweats, and pulsations over the body."

In any complaint, either local or systemic, where the pulsatilla mind and modality is present, we expect to relieve or cure.

WINTER AND SUMMER REMEDIES.

J. D. MC CANN, M. D., MONTICELLO, INDIANA.

The true Eclectic directs his medication according to the symptoms presented in the case before him. He cares not so much for the name as to have a keen discernment of that which brings the healthy subject below par.

The friends of the patient want to know the name of the disease. The words la grippe and malaria are a blessing in disguise to the average doctor. They, like charity, cover a multitude of hidden idiosyncrasies. The severe weather of the past winter in our latitude has called upon us to do our utmost to finding the remedy with which to combat the terrors produced by the elements.

In this investigation we notice a distinction between winter and summer remedies. Three or four weeks of cold, dry weather with us will nearly put the doctor out of business; but when the break comes and we have weeks of foul, wet weather, pneumonia is the prevailing disease. Asclepias tuberosa, or pluerisy root is

possibly one of the best of our winter remedies. It is good in lung and chest pains and where there is inflammation of the serous membrane. It is often a satisfactory sedative in children's fevers where there is threatened pneumonia.

We see very little said about the use of euphrasia, and it is one of the best remedies in our long list for acute coryza or "cold in the head." When there is pain and that stuffy feeling between the eyes, with sneezing and frequent nasal discharge, euphrasia is a splendid remedy, and it may be made more potent in its operation by the addition of gelsemium.

When the blasts of winter chill our bodies and shut up the secretions and cause aches and pains innumerable, bryonia and macrotys are good remedies to help us win plenary praise from our relieved patient. If the case demands, jaborandi may be used with the bryonia, which will help to moisten the skin more readily. The cold wind may cause an unpleasant burning and inflammation of the eyes and the internal remedy will be pulsatilla and staphisagria.

In recent years in all acute chest troubles, libradol and antiphlogistine have taken the place of our grandmothers' poultice, and yet, I cannot exclude that old friend that has done such heroic service in the past, entirely from my practice. Neither would I repudiate that potent remedy, the compound lobelia or emetic powder. The kidney troubles resulting from cold will need attention and several of our specific medicines will serve us well if we consider well the diagnosis.

In summer, when the heat of old Sol would drive many to the seashore, or to bask in the breezes of our northern lakes, the multitude must stay at home, and regardless of heat, toil on to perfect or care for the work begun in the springtime.

It is to those that stay and labor and to the little ones in the period of dentition that our summer remedies must be intelligently administered.

We now think of the intestinal and antiseptic remedies. We need the stomach regulator, and we need special attention given to diet. Echinacea is possibly one of the most used year around remedies we have—because of its alternative as well as antiseptic usefulness. It is useful in sore throat or appendicitis, typhoid fever or skin disease—locally and internally.

While this is a much-lauded remedy, we think the whole of its therapeutic qualities have not been investigated. Aconite and

ipecac have been spoken of so often in gastric trouble that one would think them infallible, but I must confess that I have failed to get results from their use at all times.

Xanthoxylum is a useful remedy where there is a fermentation going on and gaseous disturbance of stomach and bowels. Were the indications of baptisia given a more thorough study, it would be more generally used as a summer remedy.

The green-apple season will suggest colocynth, dioscorea, nux vomica and neutralizing cordial, and the ivy-poisoned unfortunate will cry for rhus internally and thuja externally.

It is not because any new discovery has been made that this paper is presented to this section, but to impress upon you the importance of a study of the case in a way that the correct specific remedy may be given.

Because we have a high temperature in lung fever and typhoid fever, is no reason why the same remedy should be used, but rather let us choose to work from cause to effect and solve our medicinal ratios as would the teacher his mathematics.

Should we look well to our medicine case, the distinction spoken of will be more clearly defined between winter and summer remedies.

APOCYNUM CANNABINUM.

WM. P. BEST, M. D., INDIANAPOLIS, INDIANA.

This is one of the many vegetable remedies of which Eclectics are justly proud. It owes its place in our materia medica to its own inherent qualities, which have over and again proven themselves wholly dependable. This drug affords a striking contrast to many which we have seen rise, and after a few months of popularity, due mainly to wide advertisement by interested and unscrupulous manufacturers, to quickly take their places in the dark corners of the silent abode of dead drugs.

What is said of a drug by an interested pharmaceutical specialist, or an enthusiastic writer, or even by the more honorable and respectable "authority" of unquestioned skill and breadth of learning, will fail to preserve its position in the esteem of practioners, unless it is a meritorious remedy, and experience finds a specific place for its use.

Scores of remedies today owe their continued use to the

favorite advertising space, to the retail man who dilates at length on their merits, and to the gullible doctors who from inability or lack of energy prefer to use ready-made cut and dried, hand-me-down medicines, rather than to study pathology (any farther than to get a name for the group of prominent symptoms) analyze the case thoroughly, and thereby reach a specific understanding of the case in hand and be enabled to apply his remedy in an exact and truly scientific manner.

With such a remedy as apocynum cannabinum, and with the careful, thorough diagnosis which enables the physician to understand the specific application of remedial measures, the truly and only scientific physician has faith in his medicine, has confidence in his ability, and honorably gains and retains the confidence of his patient.

We express no surprise when our regular brethren write of our old time-honored drug as the newly discovered "Vegetable Trocar," we only regret the fact that "having eyes they see not and having ears they hear not the things that so nearly concern their temporal salvation."

Over two-thirds of a century of practice, experiment and study have given our remedy, apocynum, a specific place among our direct and well-tried remedies. It is not administered because John King advised its use in well-selected cases, nor because Scudder or any other man said it cured dropsy or any other disease, but because we have learned that its value depends on its power to overcome disease or stimulate to normal activity when certain pathological conditions are present, and these conditions are tabulated as experience has proven the power of our remedy to overcome them in a direct or specific manner and not at the same time do more harm than good by inducing other derangement, or obstructing other processes necessary to our patients' well being.

Apocynum is a mild, unirritating, yet positive diuretic, producing a copious excretion of limpid urine, unmarked by any untoward symptoms, unless given in large doses. This hydrogogue action is not alone noticeable from increased renal excretion. In from two to four drops doses, the discharges from the bowels gradually grow thin, watery and frequent, but the effect is not unpleasant nor debilitating. Personal experience with apocynum has never caused me to discontinue its administration because of harsh effect. The influence of specific apocynum in

dosage, from one to five drops every two to four hours, first makes itself manifest in the changed character of the pulse, when it is given for œdematous conditions, due to cardiac debility.

In advanced age, where the whole physical system is weak and relaxed, tissues flabby and the entire circulatory apparatus sharing in the subnormal tonicity, pulse weak, the heart embarrassed by increased effort to propel the blood through relaxed vessels, beating irregularly and rapidly but unable to keep up sufficient movement of the blood to cause free excretion and avoid œdema in parts far removed from it, we have a clinical picture not uncommon.

Such conditions follow attacks of la grippe (the genuine article) in some patients, and in such cases apocynum alone, or associated with such remedies as conditions specifically demand, will not disappoint you nor your patient if the case is amenable to treatment.

Results, far more than a physician feels justified in promising a patient or his friends have followed the use of apocynum. In two cases where the heart was laboring tumultuously, irregularly, and the radial pulse almost imperceptible except for a third or fourth bounding pulsation, apocynum in doses of two to four drops restored the circulatory function when all other reputed heart remedies had had fair trial and failed. In one of these cases the dropsy began as an œdema in the feet and legs, following a neglected case of la grippe. Extention upward, gradually involved the abdominal and thoracic cavities until the patient could no longer rest in the recumbent posture. Treatment seemed to afford no relief. Cactus, cratægus, digitalis, strophanthus, each alone and in varied combinations failed to afford relief or check the encroachment of the dropsy on the abdominal and thoracic cavities.

At last apocynum, three drams in four ounces of water, was given in alternation with digitalis, and much to the surprise of all who knew of the patient he passed a "pot full of water" the first night. His pulse became stronger, the heart's action less turbulent, and dyspnœa less marked. This patient, after two years of suffering culminating as above, improved rapidly and recovered and although over fifty years old at the time has since enjoyed five years of good health.

The other of the two cases above alluded to was a man 75 years old, who for five years had an irritable heart with what was

pronounced mitral insufficiency (the latter I could never find any evidence of) and a cough of many years' duration. During convalescence from an attack of pneumonia marked œdema of the feet and legs developed. Digitalis had always relieved his heart symptoms, until now when no benefit seemed to follow its use, cratægus relieved some of the more urgent heart symptoms, but the œdema remained until we added apocynum to the mixture.

That was three years ago. The patient still lives and enjoys a fair degree of health, as good as at any time in the past ten years. His heart is not well, and yet for three years it has not caused him much inconvenience. Now and again he resorts to his heart medicine for a few days, and soon regains his usual health, and he enjoys a degree of comfort that for a period of five years previous to the use of apocynum was not his lot.

Arthur J., a Frenchman of irritable, irascible disposition, suffered for years from intercostal neuralgia, rachialgia, and occasional exacerbations of suffering in the form of gastric neuralgia. He became my patient about three years ago, when he had an attack involving the heart, which was slightly enlarged, and a slight mitral regurgitation existed.

Attacks of this character became more and more frequent and with them marked cardiac weakness, general circulatory weakness and œdema of lower extremities. Cactus and bryonia usually relieved the attacks of pain and heart depression, but as the œdema became manifest apocynum was added to the treatment and never failed to accomplish good results.

In pleuritic effusion, where aspiration seemed necessary, we have known large quantities of liquid to rapidly disappear under the kindly effect of apocynum and the patient rapidly convalesce. In contrast with this case, another had the thoracic cavity rapidly emptied with large doses of infusion of digitalis and promptly died of heart exhaustion.

Geo. S., an old soldier and a rheumatic with a history of excesses in life, was laid up last winter with his usual annual attack. The heart was enlarged and the regurgitant sound speaks distinctly of mitral insufficiency. Oedema is a prominent feature of his condition and at times general anasarca seems imminent.

Apocynum strengthens the heart action and affords a regularity of movement that changes renal excretion from a scanty thick turbid urine to free normal urine and rapid reduction of œdema.

An old soldier who has apparently led an exemplary life, was in April, 1904, attacked with acute congestion of the liver. This was followed with marked œdema of the left foot and leg, attended with a very low degree of asthenia. He also gave a history of an ill defined heart affliction. The urine very scanty. Since the œdema appeared, no remedy has been used except the distillate of apocynum, made by Lloyd Bros., according to the direction of Prof. Jerome Keys, of Omaha, Neb. This was given in 30-drop doses every three or four hours. The pulse grew regular, stronger and full; the urine more copious, and the œdema gradually disappeared. The old gentleman now goes about as usual, although still somewhat feeble.

A young man, a German, of good family and habits, had acute rheumatic arthritis two years ago and was left with marked œdema of the entire left leg and thigh. No heart trouble exists. The limb was bandaged, enclosed in elastic stocking from the ankle to the hip, and no remedy given except apocynum, only now and then macrotys was added when the limb was painful.

The case was recently dismissed, the limb apparently well, but we advised the continued use of the elastic stocking on account of a tendency to varicose veins. This relief was afforded with the patient on his feet at work every day.

John D., age 87; in early life studied and practiced medicine, but became disgusted with it because he considered it a fraud. His life was not conducted along the straight and narrow way. Long years of drinking and disregard of health when at work left a wreck mental as well as physical. This old man is weak, relaxed, unsteady. His heart action is irregular, weak, and causes dyspœna. His tissues are flabby, skin like an ill-fitted garment, muscles soft and easily exhausted, bowels very inactive, constipation being marked unless the bowels are under the influence of medicine. The skin and kidneys excrete but little, and while the appetite seems abnormally good, the general weakness shows marked wrong of nourishment; œdema of both legs is marked.

For more than a year this patient has improved under one remedy, apocynum. For him, it is a heart stimulant, giving tone and regular action, with relief from dyspnœa. It is a decided laxative, giving free, easy action of the bowels every day.

The œdema has disappeared, the general condition grows better and under the benign influence of apocynum this man who,

eighteen months ago, was confined to his home, goes about at will and has recently journeyed over a hundred miles by rail, and returned apparently improved by the visit.

The late Dr. W. F. Curryer was of the opinion that apocynum is a logical remedy for meningitis, as it would cause absorption and removal of the exudate, which is so disastrous in this affection. Personally, lack of experience prevents me from being able to offer any comments on this point.

Experience with apocynum leads to these conclusions: It is a heart stimulant followed by no depressing influence. It is acrid and to some sensitive stomachs is a source of irritation. It is a laxative of decided but not disagreeable action. It favors a better state of tonicity of the whole system, particularly when the blood vessels are relaxed and weak heart action allows exudation of serum into the tissues. It, by its kind influence on the circulation, aids in the restoration of general well being, contrasted with the state of asthenia which is one of the prominent conditions in which this remedy acts most kindly.

In from one to five-drop doses, it has never, in the author's experience, caused any untoward effect.

DISCUSSION.

DR. SHERMAN: In connection with what has been said of heart trouble, I have had case after case with the œdematous condition of the feet and legs and apocynum in connection with digitalis and cactus would bring relief. The same in pleurisy with effusion. I generally find it takes two or three days to get much effect, and two or three weeks to get a good result.

DR. KRAUSI: I wish to take exception to this treatment of heart disease. We should endeavor in the discussion of remedies to be definite. I have been using apocynum cannabinum for twelve years, probably daily. I have found that its indiscriminate use for heart difficulty does more harm than good. The only condition in which it is the ideal remedy in heart difficulty, and this is usually accompanied by dropsy in some form or other, is where there is a pre-existing hypertrophy or dilatation, and the compensation is disappearing. In this condition it will give you immediate results. In reference to the statement that one patient treated with digitalis and one with apocynum, and one died and the other did not. If he had stopped to think he would have recognized one important point he is thoroughly conversant with,

and that is in the use of digitalis after over twenty-four hours, there is a diminution in the amount of excretion of urea, 1-6 of the urea, and that is what causes the difficulty and hastens death. The urea is reduced from 1-6 to 1-15. We have demonstrated this time and again in our examinations. I believe the only lasting and beneficial result is in its physiological dose, and that is one or two drops of the specific gradually brought up until you get a result. The moment you get your catharsis you get toxicological action, and the patient is never benefited permanently by the drug. You may hasten the relief of the dropsy, but it is only temporary, and by increasing the catharsis of your patient you are depleting just as though you gave a cathartic.

DR. BEST: I use a preparation made by Lloyd Bros., and it is known as distilled apocynum. It is clear as water and has no acrid taste or cathartic effect. It is a diuretic and heart stimulant.

DR. KINNETT: Quite a number of physicians have asked me if I knew of a tasteless preparation, and I said that I had used a distillate for eight or ten years that did not produce the cathartic effect or nausea. I find many patients cannot take the specific remedies or a fluid extract, if in a very small dose.

DR. WELTY: This discussion has been interesting to me. I have used apocynum in a great many cases. I have had the experience of nausea in the tincture in any form. By adding magnesium phosphate you can push it to the physiologic and drug action.

DR. WOHLGEMUTH: I do not like to get into these discussions for the reason that I am one of the old ones and I do not like these new remedies perhaps as much as some of you of the present day. I would say I have used apocynum cannabinum this half century and have found it one of the best preparations, and I use the fluid extract of Parke Davis and have always found a happy and good result and especially with dropsy. I have given the fluid extract with a little maderia wine, and give in five, six and ten-drop doses. I even give as high as fifteen and twenty drops, and never had bad results. There are not many doctors more successful with dropsy than I have been. I have used apocynum, and I would use it with acetate of potash 1 oz., white sugar 1 oz., aqua dist. 8 oz., and one to two dr. apocynum cannabinum and give in tablespoonful doses three times a day with the best results. It acts as a good diuretic. It eliminates through the skin; it acts gently upon the bowels.

DR. WINTER: I would call attention to one particular place where apocynum comes in very nicely, which I do not believe has been mentioned, and that is in cerebro-spinal meningitis. After acute symptoms have passed, where there is an effusion in the membranes, and the apocynum often relieves the patient very quickly. It is true we have a dropsical condition there. I think it would be well to remember this remedy along with this disease.

DR. SCHAFFER: I have been using this remedy eight or nine years, but the most effective place is in old cases of drunkenness. It will settle the stomach and straighten out the delirium quicker than anything I know. I found this out by accident. I tried one thing and another, and finally put them on this, and they said, "That's what they gave me at the institute." That is what they use to settle the stomach.

DR. SCHUSSLER: Sometimes we do not get enough of the effect as a renal hydragog. We need more of the watery portion of the urine discharged. Therefore I have been combining this with gelsemium. Also with the acetate of potash. With gelsemium it is a splendid remedy. Often where pleurisy has been treated first with morphine to relieve the sharp pain, you will have a pleuritic effusion and dropsy of the pleural cavity to contend with, but this combination will relieve this effect if anything will do it. In all cases where there is a subacute inflammation of the serous membrane there is no remedy that will relieve the effusion like apocynum will. In hydrops articularum it is splendid if local pressure is applied also.

DR. KEYS: Apocynum is one of the oldest remedies in our therapeutics. I prefer to use the distillate of the drug, because we can get everything from the distillate we can get from the tincture. We don't want the cathartic effect, and we get everything from this preparation and no disagreeable effect on the stomach or bowels. I am glad the doctor mentioned this in the case of old topers. I have used the distilled preparation in cases of this kind to the best advantage and I believe it is one of the best remedies we have. I would use it for any case of œdema. It will not act on the bowels, it will stimulate the heart and give better breathing. If you will thoroughly test the preparation of Lloyd you will not use the specific tincture. I use about a half teaspoonful and repeat every two hours. Then it can be gradually decreased.

DR. BEST (closing): I have but a few words to say in addi-

tion. I think there were some things probably misunderstood. I do not use apocynum indiscriminately as a heart remedy. I do not use any remedy indiscriminately for any purpose. That is not specific medication. In regard to the apocynum and digitalis I mentioned, I was under the advice of a regular physician. This man had been the family physician. I wished the man to take charge of his own patient and assume the responsibility, but I got to make out the death certificate, and it was because the heart would not stand the digitalis. We simply killed him with it. You cannot take any two patients and give them the same quantity of a remedy and get the same effect all the time. You cannot say the dose shall be one, two, three or four drops.

DR. HENDERSON: What is the pathological condition which you conceive as indicating the use of this drug, regardless of heart disease, kidney trouble? Answer: One of subnormal tonicity. The Chairman suggested it be combined with the oil of cinnamon.

SANTONIN IN A NEW FIELD.

FINLEY ELLINGWOOD, M. D., CHICAGO, ILLINOIS.

For a good many years I have been watching closely the action of our individual remedies upon specific conditions and I have found a new field for this remedy, and I think it an important one. I gave santonin once to a little child who was suffering greatly with a high degree of nervous excitement and with that peculiar train of symptoms that we associate with worms. I thought she had worms, and I gave santonin and the symptoms abated most satisfactorily; but much to my surprise, I never found any worms or any evidence of worms. There was nothing but a peculiar intestinal irritation. I asked myself the question: has that remedy allayed the reflex irritation independent of any action it would have had upon worms? It set me to thinking. I had another case in which there was a great deal of irritation of the general nervous system, bordering on convulsions. I could find no cause for it and I said it is reflex. Where the cause was I could not determine. I gave the santonin for the reflex irritation and it acted as it did in the first patient. It allayed the irritation at once; one grain at a dose every two hours. It set me to thinking again, and I now believe I have found a remedy for

many cases of reflex irritation when you cannot know what the cause is.

One of our professors once sent for me and said: "Dr. Ellingwood, I want advice for my baby. It is seven months old. I can't find anything the matter with its lungs, but it has coughed every moment since it was born. What would you do? I have had Dr. Christopher, an old-school doctor, who makes a specialty of such diseases, and four or five other professors, but I can't get anything to stop that cough."

Like a flash of light this agent came to me, and I said: "Go home and triturate a little santonin, and divide it so that the baby gets a half or a third of a grain at a dose and give it every hour, and see what the result will be. A few days after that the wife of the doctor said to me: "The powder you gave our baby stopped its cough and it has had no cough since, the first time since it was born." The doctor said he never heard of santonin as a cough medicine. It was not for the cough, but the reflex irritation.

I was called from the city eight weeks ago to see a case of heart disease of a serious character. I was told I need not hurry, as it was a chronic case. I got there in about twenty-four hours.

I found a lady sitting with her feet propped up in a careful position and apparently very much afraid of making any exertion. The doctor said to me: "This lady has had a serious heart trouble for three or four years. She went to a watering place and it got better. She came back and it came on two years ago as serious as ever, and she is not able to move out of her chair, except as she is helped. She is afraid to make a motion, for fear of a most violent disturbance of the heart." I said: "It beats more violently than any case I ever heard. There was a little dropiscal affection and the stomach was seriously affected. I made a careful examination of her, and was unable to detect the cause. There was very little valvular fault. I was for the moment non-plussed. I said: "Can it be possible that it comes from reflex irritation, and where is it? I could not find it, although I went into every possible detail. Then, as it was my train time, and I found I would be kept twenty-four hours if I missed the train, I got into the automobile with the doctor and talked it over as we went to the train, but we could not decide where the irritation was. I said: "I will give you some advice you will probably laugh at, but I want you to carry it out." I had him triturate

santonin thoroughly in sugar of milk and divide so as to give one grain at a dose, every two hours. I advised him to neutralize the acidity of the stomach. In ten days the doctor wrote to me: "Ellingwood, that santonin of yours, or the other medicine, has had marvelous effect. I think it was the santonin, because the other I had used before without effect. In three days she got up and walked about the house a little, and then asked to help with the housework, and the heart is quiet and only 85 beats now." I am sure it lessened the reflex irritation to a great extent.

After my work on materia medica and therapeutics was first out, I got a letter one day from a man in Alabama. He began by apologizing for writing to me and said he was a radical old-school doctor and said he had never accepted any theories of any other school before, but he said he had been anxiously hovering over his only child for three weeks with the most peculiar form of persistent fever he had ever seen, and was absolutely unable to allay that fever. It was evident there was a reflex irritation, but the cause could not be explained. He said: "Just as I was getting ready to watch the twenty-first night over that baby, with a temperature of 103-4 degrees, with no abatement, I noticed your work and it was by the merest chance I opened it to the article on santonin. I noticed what you said as to the possibilities of santonin in reflex irritation and controlling temperature. I thought that the strangest suggestion I ever heard, but I went back to the bedside of that little child and gave a half grain, and in two hours another dose, and kept it up, and in twenty-four hours the child was better and the temperature had dropped to 100 degrees for the first time in three weeks." He wrote to thank me for the suggestion. I saw the suggestion in an old-school periodical that it was an anti-spasmodic in large doses. I don't feel safe to try a large dose. I am afraid of it. I never killed a patient yet and I am getting so old I hate to begin now. I would rather some one else would take the responsibility.

I have thought the remedy a powerful nerve sedative. I was called in consultation on the 26th of October to go to the extreme West of Chicago and see a patient suffering from the results of acute nephritis after scarlet fever. Dr. Whitford has suggested santonin to stimulate the kidneys in these acute nephritis cases. It does not do so well in chronic nephritis. I found the most peculiar action of the heart. In this case I found great difficulty of respiration and perverted vision and occasionally

mild convulsions. I said: "What is this other than uremic poisoning from imperfect action of the kidneys?" There was considerable water but little solids and a good deal of albumin. There was some temperature and some local conditions which suggested bryonia, which I gave, and then gave half a grain of santonin every two hours in trituration. Soon after the father said to me that they had not discharged the old-school physician but simply asked him to continue the medicine I suggested. He said he did not think he had done it, as the child still had peculiar spells. I told him if he wanted me to assume any responsibility in the case the remedy must be given. The doctor called me by telephone and gave me to understand that he would not listen to my suggestions. They finally gave the child my medicine. Some weeks afterward the mother came to me and said she had been very busy but she had intended to come and tell me that in four or five days the child began to get well. The quantity of urine became normal, and the child was out yesterday, she said, all afternoon, sliding on the ice. Soon I examined the urine again and found it normal.

DISCUSSION.

DR. KINNETT: Have you noticed in any of these cases any subsequent indication for santonin as given by Dr. Scudder?

DR. ELLINGWOOD: I have not looked so closely for that, as Dr. Scudder's indications are given for worms alone. I was thinking more of the other idea all the time.

DR. KINNETT: I think you will find there is. I have used this remedy in many cases and it will do the work that he has told you about, but in almost all the cases I have found the indications as Dr. Scudder has given them for worms. You all know them. If you will find them in any case and give this remedy I think it will relieve the reflex nervous trouble, whether you know the cause or not.

DR. TRUAX: Back in '86, in listening to Dr. Cowperthwaite, he said: "You will find in your practice that santonin will destroy the organisms in the intestines, no matter whether vegetable or animal. I have found this to be true where the intestines are involved.

DR. BAIRD: Speaking of Dr. Scudder, I have gone according to his indications, but I think Dr. Ellingwood has introduced an innovation. Why could we not use it in the vomiting of pregnancy?

DR. ELLINGWOOD: I have not, but I think many times it would stand a trial in that case. I have relieved one case where there were some of these worm symptoms present.

DR. WIDENER: I have used santonin in retention of urine and in new-born infants. Sometimes they fail to urinate in the first twelve or twenty-four hours. I have used it triturated very highly. I administer in small doses and repeat in about two hours. Have also used it in the lying-in woman. Sometimes they cannot urinate. And I get good results nearly always.

LYCOPODIUM.

H. E. TRUAX, M. D., TALLAPOOSA, GEORGIA.

When I was a student at the State University of Iowa, Prof. Smith lectured on *Lycopodium*. His whole argument was that it was a good baby powder. You will find it useful in most cases. I have been experimenting with it for a great many years, and I was surprised and also pleased to find in Prof. Ellingwood's materia medica a fairer description of this important drug. We all know that condition in which we have a tender condition of the abdomen, pain on the right, and perhaps a swollen condition; large, flat, yellow tongue, something like the nux vomica tongue; the main symptom, as Prof. Ellingwood puts it in his book, is the dark urine, and I can say from an experience of twelve years, that you will cure every one of these symptoms. You have all been baffled in this condition, and you will get more credit for curing a case of this kind and Eclectism will be extended in your neighborhood. I make my own tincture, and I want to caution you in regard to buying the drug. It is adulterated more than any other drug in the market. Crush the capsule of each tiny seed by thorough trituration and make as fine a powder as possible, and to four ounces of this drug add a pint of alcohol and let it stand from ten days to two weeks; then give it from fifteen drops to a teaspoonful, according to the effect you wish. You will find it makes a nice mixture and your patients will be glad to get it and will give you credit for giving a splendid medicine. Give it three or four times a day, generally four times. The crude material can be gotten from the wholesale druggist, any one who is reliable. The only way I have results is by making it as I tell you.

LEONTIN.

LEE STROUSE, M. D., COVINGTON, KENTUCKY.

This is the active medicinal principle of the blue cohosh. Its properties and uses are the same as those of the cohosh itself, but I have found many uses for it not mentioned in the usual description of its therapeutic activities.

It is always a safe remedy to administer when a woman is pregnant, as it is non-abortive. In scanty menstruation, where there is increasing adipose, it is the remedy. Its administration should be continued for two or three months. It has a tendency to increase the menstrual flow, at the same time lessening the development of fat. I find in many women that are gaining fat, that their menses decrease. With the approach of puberty, at fourteen or thereabouts, when there is a multiplicity of complaints as the patient is approaching womanhood, it is just the remedy. When there is suppressed menstruation from cold, caused by exposure, or by taking a bath or bathing the feet in cold water as the monthly period approaches, this, in good sized doses, will bring about desired results.

I once cared for a case referred to me by a medical college professor, while he took a trip. He informed me as to his course of treatment and I suggested this remedy. And he replied that it was not worth using. I put his patient upon it and when he returned he found marked improvement.

I would advise the careful study of leontin, that we may all learn its greater field of usefulness. It is an admirable remedy, clean to handle and dispense, and pleasant to take.

A Miss of seventeen, who had menstruated but half a dozen times, fell into my hands. She had been told that she had better go to Mexico. She said "that to her meant consumption," and she decided to change physicians. I prescribed three bottles of the following: Leontin ℥ss, Aqua. Dist. qs. ℥iv, M. A teaspoonful before meals and on retiring. Her condition has improved, her cough has almost ceased, her menstruation, which had stopped for about six months, has returned, the second and third flow occurring at proper times, and she has returned to work.

IODINE AND ITS COMPOUNDS.

H. V. BLOSSER, M. D., FT. WAYNE, INDIANA.

My subject is, as you all know, not a new one, but from its present standing, after nearly a century of investigation and criticism, it is not necessary for me to state that it is one of our most valued remedies.

It would be difficult to find a doctor in our country, no matter from what school of medicine, who does not use this drug in some form, consequently I cannot hope to present very much, if any, original knowledge in its uses. I will not tire you with the history or chemistry or description of the drug, for they can be readily found. Nor will I mention all of the combinations in which it is used, for they are too numerous.

My intention is to discuss the simple drug and its most important and practical compounds from an Eclectic point of view —i. e., the specific indications in the diseased human system calling for the drug and for the compounds which I have investigated.

Physological Action.—While it is not the principle of Eclectics to push drugs to their poisonous or physiological effects, yet owing to the peculiar idiosyncrasies of some persons and the fact that we meet with patients who have been over-drugged before coming to us, it is well to be familiar with the effects of over-dosing.

The acute symptoms of iodism are irritation of the gastro-intestinal tract, vertigo, pain in the head, tinnitus aurium, heavy and offensive breath, slight swelling of the parotid glands with salivation, salty taste, coryza, rapid pulse, weak heart, while those due to continued use of the iodides come on more gradually and consist in eruption simulating acne, gingivitis with brilliant red lines on the margin of the gums, acute symptoms all more intensified, also a developed pharyngitis, bronchitis and various forms of eruption, such as vesicles, bullæ and purpuric spots. Sometimes they are attended with fever, also nervous and vascular symptoms, such as headache, neuralgic pains, tremor and twitching of muscles with asthenia, palpitation, dyspnea and symptoms simulating exophthalmic goitre. In some cases where the poison developes slowly there is atrophy of muscles, loss of sub-cutaneous fat. causing wrinkled skin and the appearance of profound

anæmia or cachexia. Some cases of atrophy of the mammary glands and testicles are attributed to this poison.

While the various popular salts of iodine are usually considered to be safe and harmless when administered in the ordinary doses, it is well to watch the effects closely, for occasionally the most violent conditions result from minute doses, and with our present knowledge there is no definite rule to follow. Syphilitics will usually stand enormous doses without ill effects.

Antagonists and Incompatibles.—Iodine is incompatible with the mineral acids, the metallic salts and the vegetable alkaloids. The chemical antidote is starch or articles containing it. These should be given well diluted in water, and the stomach should be freely evacuated to prevent reabsorption. It should also be remembered that when iodine or iodides are taken immediately after a meal they lose much of their usefulness by uniting with the starches in the food.

Therapy.—The pure drug iodine in scale form is too irritating to be used for many medicinal purposes. It is a severe irritant and might be used for that purpose, although we have many better remedies. It has a hot pungent flavor, and when taken into the stomach it excites a sensation of heat and burning. It is sometimes used in pill form, combined with other substances. It is readily dissolved in alcohol (1-10) and with this we have the plain tincture of iodine, which is useful in many ways.

Iodine preparations are contra-indicated in most acute troubles, especially where there is inflammation of the intestinal canal, yet where there is passive hemorrhage and atonic diarrhea with unusually foul discharges the tincture of iodine acts well. Its chief use is in chronic diseases as an eliminant to destroy deposits and degenerative tissues and aid in their excretion. In this it acts on nearly all the tissues of the body, especially the glandular structures, hence the wide range of usefulness is easily seen. In a general way the indication for it is abnormal deposits, whether diffuse and minute or local and marked.

It is an antiseptic of some worth, especially in ulcers and malignant tumors, also in some septic conditions, which will be mentioned later. It antidotes the poisons of many infectious diseases, especially that of syphilis and actinomycosis, in which it is usually considered a specific.

Inhalations of vapor of iodine are of great service in chronic catarrh, bronchitis and laryngitis when there is ulceration and

watery discharges with a sense of fullness in the nasal passage, also a hoarse, hollow cough or wheezing, evidence of spasmodic contraction of the air passages with thickening and deposit in the mucus lining. This is also of service in acute coryza and hay fever when the above symptoms are present. A convenient method of administering it is by placing a sponge or gauze, previously immersed in hot water, into a wide-mouthed bottle, and on this drop ten to fifteen drops of tincture of iodine and inhale for several minutes each time. This may be repeated every two or three hours.

Other indications for the internal administration of the tincture are directly for feeble digestion with hyperacidity, atonic conditions of the mucus and digestive secretions. In the early stages of typhoid fever, with the above named conditions and with nausea and vomiting, it will often modify greatly the course of the disease. These indications apply in the nausea and vomiting of pregnancy, for which the tincture may be given in drop doses every one to three hours, well diluted in water.

For continual administration the dose of the tincture is from one to ten drops, well diluted, three times a day.

A preparation highly lauded is the glycerole of iodine, made by adding glycerine, one part, to distilled iodine, three parts. It is claimed that this preparation is more readily absorbed when taken internally or when applied locally, consequently the dose must be smaller and the local application used with more care. The addition of the glycerine makes it more stable, also more absorbable.

Indirectly, the tincture or the glycerinated preparation may be used internally for its alterative and eliminative influences for the absorption of hypertrophies and deposits and malignant growths, especially polypus, yet the indicated compound or salt is better for that purpose.

Locally, the tincture has a great many uses, but can be included under three heads—viz., for an antiseptic, counter-irritant and an eliminant. As an antiseptic it is indicated in chronic fetid ulcers, open malignant tumors, infected wounds, vaginal douche in leucorrhea, ringworm and other parasitic diseases. As a counter-irritant it is used to abort bubo boils, tonsilitis and various inflammatory conditions, chilblains, pleuritis, bronchitis, spinal irritation and hydrocele, etc. As an eliminant to remove enlargement of glandular structure, chronic thickening of the os uteri, swollen

gums and deposits on teeth, for this it must be diluted and K. iodide added. As the glycerole of iodide is more readily absorbed it is the best preparation for this purpose.

We have seen acute infectious lymphangitis of the most severe type of great pain, red streaks from hand to shoulder, high fever, delirium, etc., following combination, viz., tincture iodine, one part, turpentine, two parts.

The majority of authorities deny that iodine is absorbed when applied to the unbroken skin, but the very satisfactory results obtained and the facts that iodism is sometimes produced seems to contradict that opinion.

The tincture is useful when added to spraying solutions for chronic hypertrophic rhinitis where there is profuse watery or purulent discharges. If extreme burning follows the application of the tincture it can be dissolved off by solution of potassium iodide, alcohol or ether.

Kalium Iodide.—This salt is the most popular of the iodides, yet is often used indiscreetly. It is more active with the excretion of the kidneys, more depressing to the circulation and more irritating to the gastro-intestinal tract, consequently is applicable where the patient is strong in these respects and will stand the heroic measures, and is useful where immediate results are desired, but often one of the other salts must be substituted when it is no longer tolerated. It is indicated when the tongue is broad, pale and of leaden color and with the mucus lining of the mouth of the same hue, and when the digestive tract and patient's strength in general is strong enough to stand active treatment. It is contra-indicated where there is evidence of irritation of the stomach and intestinal canal, and when the patient's vitality is far below par. The dose varies from two or three grains to one-half drachm, three times a day. The diseases in which its indication are usually found are syphilis, secondary and tertiary stages, tubercular or other joint diseases, scrofula, nocturnal pains of specific origin, diphtheria, early stages of Bright's disease, mercurialism, lead poisoning, enlarged glands and aneurism. Locally a solution may be applied to sensitive areas when caused by congestion of serous membranes. A solution of this salt is used as a vehicle to carry a concentrated form of the pure drug when such is needed.

Sodium Iodide.—This preparation is much better endured by the stomach than the K. iodide and should be chosen where

there is irritation of the gastro-intestinal tract, feeble circulation, renal disease, exhaustion and general debility and where the active treatment is not important or cannot be continued, where the tongue is narrow, pointed and with reddened tip and edges; here even this preparation must be watched carefully. The general condition calling for it are the same as for the K. iodide. It is by far the most desirable preparation of the drug to use and it is seldom that I use any other form. The dose is from two to thirty grains, taken with plenty of water.

Ammonium Iodide.—This salt should be chosen where there is feeble circulation and need of some stimulation, where the features are pinched and contracted and in acute coryza when the mucous membrane is atonic and flabby and when there is a free discharge of a hot and acrid character; also for dull headache, dizziness, feeble circulation and lowered nutrition and night pains. Dose, two to five grains.

Ferric Iodide.—Indicated by anæmia, impoverished blood, chlorosis, leucorrhea, tubercular lesions; in fact, wherever the blood shows an impoverished condition, with the general indications for an iodide.

Hydriodic Acid.—Indicated when an acid is needed in the system and when the digestive organs are out of order, where an agreeable preparation must be selected and a mild reconstructive agent is necessary. Dose of the syrup of hydriodic acid is one-half to one teaspoonful (well diluted with water), taken half-hour before meals.

Ethyl Iodide.—Indicated when it is necessary to obtain the effects of the iodides immediately, as in brain syphilis and its results. Also in spasmodic asthma, whooping cough, etc. Fifteen to twenty drops are put on a handkerchief and inhaled as necessary every two to six hours.

Formal Iodide—Iodoform.—This preparation can be used internally in small doses, one to two grains where an iodide is useful, but the exact indications for it I cannot give. Locally it is used on ulcerated, sloughing and indolent ulcers. In tuberculous joints, with swelling and puffiness, it is injected in emulsion form, one to ten of sterilized olive oil.

Unguentum Iodide—Iodine Ointment.—Iodide, four parts; K. iodide, one part; benzoated lard, ninety-five parts. Sig.—Use as a dressing for dry, indolent ulcers when an ointment is desired.

The compound tincture of iodine is made as follows:

℞ Iodine .....four drachms
K. iodide .....eight drachms
Spirits vini rect.....one pint

This preparation contains a greater per cent of iodine than any of the salts when used in solution in the same ratio and can be used both internally and locally as the physician desires, but its action must be watched carefully.

This, of course, is only a very brief discussion of the subject, but it indicates the uses in which the author has had favorable results.

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ECLECTICISM—PAST, PRESENT AND FUTURE.

J. A. M'KLVEEN, M. D., CHARITON, IOWA.

In entering upon the twentieth century, it is fitting that we should turn our minds backward and take a retrospective glance at the past history of medicine. In this busy age of progress and industry, when every one is striving to reach out into newer and richer fields for the hidden nuggets of science and wealth, we seldom find time to turn back in the annals of history for comparisons. The world moves so rapidly, that in order to maintain our equilibrium we are compelled to hold fast to our positions as we find them, and constantly look forward into the future for a better and more secure footing. But is it not wise to occasionally turn about and see from whence we came and note the causes which have led up to our present status?

The nineteenth century has been the most wonderful in the world's history. It would seem from the marvelous achievements of this epoch that little remains to be accomplished, but the work still continues, and from the present outlook, the wheels of progress will continue to turn only more rapidly as time moves on.

But it is the science of medicine, and particularly Eclectic Medicine, that I especially wish to review. One hundred years

ago there was but one system or school of medicine in existence. Its progress was slow, naturally, because there was nothing to stimulate it to activity. Old authors were venerated and assiduously followed, so that there seemed to be nothing for the student and practitioner of medicine to do but to drop into the ruts and channels hewn out by their predecessors. Occasionally, as by accident, some new discovery was made, or some new truth developed, which invariably had to fight its way to public favor. Almost universally, scientific discoveries, in every department. have been strenuously opposed and their discoveries ignominiously treated; because, perchance, they conflicted with some long-cherished theory that had come down through the ages as infallible.

Medicine has been no exception to the rule. In fact, it seems to have been the most strenuous of all departments of knowledge and science, except, perhaps, law, for clinging to precedents and dogmas. It is surprising, too, that such should be the case, when we consider the uncertainty of medicine to fulfill its mission—the prevention and cure of disease. Many of the learned and scientific men in the profession, as well as the laity, had begun to distrust medicine altogether and advised to "throw medicine to the dogs," and gathered their roots and herbs to administer to the sick in their own families. In this, as in similar exigencies, a reform was ushered in from a direction least expected. Indeed, it is a very general fact that the persons who serve us in the hour of peril are not usually of our own selecting. It is seldom that the scholarly, or those of superior social rank, are at hand for such emergencies. "In the days of the rebellion, when our Republic was hanging in the balance, it was a Lincoln from the prairies, untrained in statecraft and diplomacy, who came to the relief of the nation and guided the ship of state through its most critical period."

"Samuel Thomson was one of this number of exceptional men." "He possessed qualities which characterize the leader and reformer;" though illiterate, he possessed a strong mind and a deep conviction of right and was "unflinching in purpose." He was born at the proper time, just when the world needed a medical reformer; he was made of the right materials, but lacked only the polish; he was a "diamond in the rough." He well illustrates the old proverb, "men of genius are born, not made." "He who aspires to be a reformer in physic," said William Har-

vey, three centuries ago," must resolve to run the hazard of the martyrdom of his reputation, life and estate."

The truthfulness of this was fully exemplified in the life of Samuel Thomson. All who have read the "History of Medicine," by Wilder, will testify to the truth of this statement. (I would advise everyone who does not have this book, to purchase one at once; an Eclectic medical library is incomplete without "Wilder's History of Medicine").

While Samuel Thomson was not the founder of Electicism, he was the first to publicly and successfully attack Allopathy in the United States, and make the way clear for other and more pronounced medical reformers. The Thomsonian system of practice, though crude, was infinitely better than the Allopathic system, as then taught and practiced.

Dr. Wooster Beach was the first educated reformer to take hold, systematize and raise the standard of Reform Practice to anything like a system. "His great work, 'The American Practice of Medicine,' was published in three volumes, in 1833, and at once became the standard work of Reformed physicians." The Reformed System now, in a large measure, took the place of the so-called Thomsonian and Botanic systems of practice. Numerous attempts were made to unify the various discordant elements of the Reformers of that period. State and National societies were organized and many of them abandoned after a short existence. It seems strange that jealousies so raucous should exist among men so nearly allied in a common cause. But such has always been the case in reform movements. It would be impossible in a paper, brief as this must necessarily be, to even touch upon the important points of interest in the formative stages of medical reform during the first two or three decades. You are all familiar, to some degree at least, with the names of such great reformers as Wooster Beach, Wm. Paine, Alva Curtis, I. G. Jones, Wm. Sherwood, Stephen H. Potter, Thos. V. Morrow, Robt. S. Newton, J. W. Johnston, Wm. Byrd Powell, and still later the work was carried forward by such worthies as King, Scudder, Howe and Freeman, of the Eclectic Medical Institute of Cincinnati.

And still a little later by Whitford, Garrison, and Clark, of Bennett; Younkin, Foltz and Pitzer, of the American, at St. Louis, and Boskowitz, of the Eclectic, N. Y., together with a host of others too numerous to mention, all of whom have done

excellent work for the cause of Reform medicine, and whose names will pass down through history as true benefactors of the human race. Through the untiring and persevering efforts of these medical pioneers a way was carved out which led up to our present magnificent system of Eclecticism. The name is appropriate, nothing better could be found to designate a liberal and progressive practice.

About the year 1845 the first really Eclectic Medical College was established at Cincinnati, Ohio. It was founded upon the ruins of the Worthington School, which after a few years of successful operation, met with a stormy climax and was forced to seek quarters in a more salubrious clime.

The friends of this institution procured from the state legislature, after a hard fight in the senate, a liberal perpetual charter, conferring all the powers and privileges possessed by any medical college in the United States. The Eclectic Medical Institute has stood the test of time longer than any other Eclectic school and is still in a most prosperous condition. We have several other colleges that have passed the quarter century mark and have maintained a reputation for stability and thoroughness entitling them to the confidence and support of the public and the profession. We have still others, well equipped, and which promise longevity and usefulness. I would not hesitate to send students of mine to any Eclectic college I know of, and would feel perfectly sure they would receive proper training and instruction.

While the early Reform schools of medicine were at variance with each other on minor points, and frequently sought to injure each other, the fundamental principles of Electicism are now so firmly established and so unified in all of the colleges, as to create a bond of union between them.

It is the duty of the profession to stand by the colleges and to hold up the hands of the faculties in a substantial manner so as to give them that encouragement they so much need and which they must have if we expect them to succeed. I think I have noticed, during the past few years, at least in Iowa, an indifference on the part of Eclectics as to the school of medicine to which they sent their friends and students. This should not be. The profession should stand by the Eclectic colleges and give them support in every possible way; especially at this particular time, when the dominant school is making the effort of its life to absorb the Eclectics and Homœopathists.

It is remarkable how astute they have become, all of a sudden. It reminds me of the story of the "Spider and the Fly," and the results would be equally disastrous to the Eclectics.

For three-quarters of a century the Reform physicians, Eclectics, and Homœopaths, have been made the targets for their random shots of malice, the "butt" of their ridicule and sarcasm. None know so well as we older fellows, what it cost forty years ago to stem the tide of this opposition. No opprobrium was too severe for their calumny. We were stigmatized as irregulars, quacks and mountebanks; unworthy of being called physicians, or of recognition by the so-called "Regulars." All of a sudden they have discovered that there is very little difference between the schools, and graciously invite the "Irregulars" into the "Regular" camp. But, ah, yes, *but* there is a condition back of it all; you must disown your Alma Mater, you must drop your distinctive cognomen, and become a cockatoo.

While Eclectics believe in the largest liberality, and are free from sectarianism in its ordinary acceptation, we are not ready to give over the hard-earned laurels of a century to those who have so recently opposed us.

I can see no good reason at this time for amalgamation or absorption. Three schools of medicine are not too many. Each stimulates the other to a more vigorous and healthy growth. We find the same rule obtains in religious societies and political parties. When the time comes, if it ever does come, when all men see alike and think alike, then all isms, and pathies, and schools will cease, and men will be united upon a common platform.

I am pleased to note the progress that is taking place all along the lines of Eclecticism, and especially in our indigenous materia medica and in therapeutics. It is now a little over forty years since I bought my first bill of drugs. I made my first purchase of Wm. S. Merrell, in 1861. They were mostly crude drugs, but many of them were the same in kind that I am using now, but no one would be able to recognize them in the prescriptions as being at all related. I am proud of the fact that all schools recognize in the preparations from the laboratories of "The Merrell Chemical Company" and "Lloyd Bros." the most reliable pharmaceuticals in the world. I speak from personal knowledge and am paid nothing for the "ad."

The number of Eclectic physicians in the United States can be only approximately estimated. Some who profess to belong to

the Eclectic school make use of the medicines and procedures employed by other schools, and many who are identified with rival schools have adopted more or less the procedures and medicines of the Eclectics. "Many who have been instructed in Eclectic medical colleges are recorded as belonging to other schools of practice; some from having changed their sentiments, and others for reasons of a different character." The most accurate computation I have been able to arrive at, places the number of Eclectics at ten thousand, the Homœopaths nine thousand, and the Old or Dominant School, seventy-three thousand. The Dominant school outnumbers the combined Eclectic and Homœopathic schools nearly four to one. In this fact we should find no discouragement. Ten thousand educated moulders of public sentiment, scattered through every state in the Union, furnishes a bulwark of strength and power when planted upon scientific principles, sufficient to move the world.

"I am no prophet, neither am I the son of a prophet," but I am willing to predict, judging from the past, and from what I can see in the present, Eclectics have no reason to fear for their future. But a word of caution—the fathers are dead, many of the present generation are nearing the goal of earthly existence. thus leaving the battle to the younger and coming generations. It will not do to rest quietly upon the laurels of former generations. As the ranks are depleted by infirmity and death, recruits must fill their places. Not only so, but new columns must be raised of better material to swell the phalanx of incoming generations. Progress should be the watchword and should be engraven on every banner, so that, phoenix-like, one generation after another will rise from the ashes of its predecessors, better and stronger each in turn than those who had gone before.

DISCUSSION.

DR. MUNN: When I commenced to practice medicine I met all sorts of opposition. They were ready to call me most anything and did most everything they could to try to drive me away from the place where I was located. I remarked I should remain as long as the war lasted, and when peace was declared I would do as I wanted—stay or go as I chose. The war is past; peace is declared; but I am not going to the old school. When they ask us to renounce our name and they will take us into their association, what does it mean? What does our name mean? You all

understand what it means. It is to prove all things and hold fast that which is good. It is to test and study over all medicine and take the best. That is the meaning of the word. What right has a man that is an Eclectic to surrender his name? I would as soon surrender the name that my father gave me as the name Eclectic. The man who has not independence enough, back-bone enough, to stand up for his convictions rather than be flattered into the old school, I have no hopes for, and the sooner he goes there the better. These are my ideas. We do not want any cowards in our ranks. We call for those who are not afraid to die. The rest we can spare.

DR. ANDERSON: I have never yet had a reputable old-school man attack me. I do not know why it is. I do not question that the older members have had disagreeable experiences, but I am inclined to think that these conditions are largely the fault of the men. One point that seemed to be brought out in the able essay was that we should beg and beseech the members of the medical profession to become members of this National. I am a little opposed to that idea. I believe in making this branch of the profession so good that men will clamor to get into it. Gentlemen, each of us that are married know that we would not have married if the woman had come to us and asked us. We must beg and beseech to appreciate the good. This National Association should be of such character that the Eclectic members of the profession, that is, the members who are graduates of Eclectic colleges, will clamor to get into it. They should prize this membership. I have been a member since 1884. I am proud of my membership.

DR. TRUAX: I do not like that term "predominant school," unless we apply it to Eclectics. I will tell you why: we may have a bushel of ordinary crystal, but if there happens to be one pure diamond in the midst, it predominates over all the crystal. Eclecticism today is the diamond in the midst of the common crystal.

DR. CHURCH: In the county where I am located there was an attempt to form a county medical society under the old school program. I was invited politely to join them. I met them. They were the old-school men of the county; no irregular there but myself.

One of these men got up and said: "Of course we like irregulars about as well as the devil likes holy water." That was the first reception. Another went farther. He said, "I never knew

an irregular yet that was not either a rascal or an abortionist." That was my second reception. When they came to announce the terms on which I should be taken in, it was that I should not only renounce my name but that I should refuse to practice what they called sectarian medicine (it was a resolution written out), but practice regular and *scientific* medicine hereafter, and I should not affiliate in future with any medical society except the regular county, state and the American medical associations. Because I did not join them they have combined together and declared that they were going to drive me out of the place, simply because I do not belong to their school. If that is my fault, the lines are hard.

DR. MICHNER: I am glad the doctor spoke. I wanted to, but I am bashful. I, too, have trouble. Possibly it is my own fault. But I have held up the banner of Eclecticism and if you will come out where I practice you will find every one knows I am not a Regular. I stood the war until peace was declared, and then I got on top. Now I am counted a good fellow, after the fight, and they wanted to take me into the county association. They said they would make it local and strike out the state and national if I would come in. But I haven't come in yet.

DR. MCKLVEEN (closing discussion): I enjoyed the criticisms very much and have nothing special to say in connection with what has been said on the subject.

ERYSIPELAS.

H. W. FELTER, M. D., CINCINNATI, OHIO.

The prevalence, during the winter and spring months of the last three years, of erysipelas, in the author's locality, is the apology offered for presenting this paper on the idiopathic form of the disease. Moreover, while it is a disease of no mean consequence and one occasionally fatal, it also offers an opportunity to display modern Eclectic or specific medication treatment, for no disease yields better results from direct medication.

Erysipelas has been variously known as St. Anthony's fire, La Rose, and Erysipelatous Dermatitis. Clinically it is an acute contagious disease of specific character and greater or less degree of virulence, and of about two weeks' duration when uncomplicated. It attacks the skin and subcutaneous tissues and mucous

membranes, chiefly of the head and face. In fact the structures primarily affected are the superficial lymph channels, this circumstance explaining the greater prevalence of the disease upon the head, scalp and face, as these parts are very abundantly supplied with superficial lymphatics. In the simpler forms, however, the lymphatic glands escape infection.

Etiologically, little need be said concerning the causes of so-called idiopathic erysipelas, as this variety of the disease was formerly, and is sometimes called at present, to distinguish it from surgical erysipelas. The latter term, however, might very properly be retained to designate those cases following operative procedures. Bacteriologists ascribe as the specific cause of erysipelas the small, chain-like or serpent-like coccus known as the *Streptococcus erysipelatus* of Fehlheisen. This organism seems to thrive on all kinds of culture media and it is still a question whether or not it is identical with the common pus-producing coccus—the *streptococcus pyogenes.* One thing is generally conceded, and that is that sound skin is proof against attacks of erysipelas, but that the streptococcus, if that be the exciting cause, in cases not due to the greater forms of trauma or to surgical operations, gains an entrance through some scratch, abrasion, prick, or fissure, though the lesion may be so slight as to be ordinarily invisible. That there has always been such a lesion has been the experience of the writer. Such lesions may have completely healed after the invasion of the exciting cause, which may set up its peculiar inflammation at some point remote from the point of infection.

In such cases a red streak may be traced from the inflamed area to the site of the original lesion, the cocci having traveled along the lymphatics. It will be observed that virtually there is no distinction between the idiopathic and the surgical forms of the disease. Fortunately aseptic and antiseptic surgery has contributed much towards lessening the prevalence of erysipelas.

The definitive phenomena of erysipelas are those of an acute inflammation. The affected parts exhibit a shining redness, of more or less depth of color, a degree of swelling, often more or less œdema, febrile disturbance of a low type, and in many instances a tendency to vesicular and bleb formation. Moderate prostration attends these phenomena, the lesions exhibit a strong tendency to spread, and while the disease may attack any portion of the body, the locality most commonly affected is that already

mentioned—the face and scalp. Erysipelas terminates by desquamation. Fatalities to the extent of 10 per cent have been recorded.

As to the predisposing causes there is no doubt but that family history, previous attacks, and seasonal influences play a most important part. When the resistance of the subject is lessened by reason of influenza, phthisis, typhoid fever, general tuberculosis, diphtheria, or the exanthemata, or by reason of dissolute habits, the virulence of the disease may be much greater than in those not impaired by previous illness. The lying-in woman is peculiarly susceptible to the contagion. Catarrhal affections of the mucous tissues have much to do with preparing a receptive area for the invasion of the disease. The majority of cases occur between the ages of 20 and 40 years, and the spring months give the highest number, April leading the calendar, while August registers the fewest cases.

The majority of cases treated by the writer developed from little boils or fissures, or from sycosiform eruptions within the nasal margins. Usually these had been pricked or scratched with the finger nail. One man, who has had three almost fatal attacks, has in each instance had the disease originate in such a manner. Undoubtedly his occupation, that of a plasterer, with consequent exposure to dampness and the vapors of lime, contributed to precipitate the attacks. This man has always presented a horrible facial disfiguration, losing all resemblance to human features. Pus forms and prostration is extreme, yet he recovers quickly, considering the magnitude of the attack.

The onset of ordinary cases of erysipelas may be announced by a decided chill. This, however, does not always occur. The patient passes through about twenty-four hours of such prodromal phenomena as malaise, slight chilliness, nausea, and occasionally, vomiting. Headache is usually present, with restlessness, loss of appetite, and cough and sore throat may be experienced. Whether or not there is a decided rigor the pathognomonic local manifestations quickly follow; occasionally, however, the invasion may be more gradual. A tumid, slightly elevated spot, ranging in size from that of a dime to that of a dollar, is noticed, and a well-marked irregular border is displayed, forming an abrupt line of demarcation between the unaffected and the diseased portion of the skin. The appearance and color are characteristic, the tense, smooth and shining or glazed surface of a

rosy or crimson color being unmistakable. Added to these are the subjective sensations of moderate itching and burning pain. The depth of color is variable, from that of a sodden, pale rose to deep scarlet. Moderate pressure changes the color to yellowish-white. While the line of demarcation may be distinctly seen and felt, still there are often small patches or streaks in development outside the larger areas. The febrile process ranges to about 104° F. though it may reach 107° F., varying with the character and extent of the local process, with which it is always proportionate, and is usually of the remittent or intermittent type.

The physiognomy of one having facial erysipelas is not easily forgotten. Several diseases present a considerable analogy and resemblance to this form—notably *dermatitis calorica, acute eczema, dermatitis venenosa,* yet these all have distinctive features by which they can be readily recognized. It would seem that, the only disease likely to be confounded with it would be *erythema,* and yet this lacks the fever that always accompanies erysipelas.

Various names have been applied to erysipelas when assuming certain characteristic differences. Thus, when there is sufficient œdematous infiltration to lift and separate the epidermis vesicles and blebs form; the disease is then distinguished as *erysipelas vesiculosum.* Suppuration is prone to attack when blisters have formed, giving rise to *erysipelas pustulosum.* In severe cases, adenopathy of the neighboring glands is not uncommon and intense infiltration may induce gangrene—the so-called *erysipelas gangrenosum* obtaining. That form in which the disease progresses from one point to another, spreading more or less rapidly to neighboring tissues, and even by direct extension to parts remote from the original area is denominated *erysipelas migrans.* This ambulant type, which, fortunately is rare, may persist for weeks. In ordinary cases, as before stated, the skin clears by desquamation, leaving the complexion of better quality than before the invasion, while those cases in which blebs have formed develop crusts, which, when shed, leave a temporary and gradually fading area.

The treatment of erysipelas should be local, systemic, and supportive. Too much stress cannot be placed upon hygienic observances. The skin should be put in the best possible condition by frequent tepid baths. The sick chamber should be well-aired and well-lighted, direct sunlight being screened from the patient

if the eyes are sensitive to light. The bowels and kidneys should be in active condition, and water should be allowed in abundance. Stimulants are rarely necessary except in cases of profound depression and even then they are but sparingly required. Champagne and beer may be allowed in moderation if the patient has been accustomed to the use of spirituous beverages. The best diet is that in which milk forms the chief ingredient. Perhaps cold milk is more grateful than any other food. Beef tea, or preferably beef soup with rice, malted milk, ice cream, soft-boiled eggs, cereals, and fruits may be given, the choice being governed by the capability of the digestive organs properly disposing of them. Faulty digestion, as manifested by a foully-loaded tongue would suggest the withdrawal of much food until medicinal means have corrected the condition. Should great restlessness and pain prevent the patient from resting or sleeping, anodynes may be judiciously employed, one of the best being the diaphoretic powder. For unloading the bowels nothing is more effective than either magnesium sulphate or sodium sulphate, for either assists also in the reduction of temperature.

The medicinal treatment should be most largely specific for no disease presents stronger indications for specific remedies than erysipelas. The remedies, both topical and internal, that I have found most effective are few, but direct. At the risk of being considered antiquated I shall claim for equal parts of tincture of chloride of iron and glycerine the leading place as a local dressing in the majority of cases. The indications are bright, shining redness of surface, the skin being glistening and tense. Specific veratrum (one dram to eight ounces of water) is a close second when these indications present. But with the iron lotion there is also the characteristic red tongue calling for hydrochloric acid. The iron mixture may also be given internally, in doses of from ten to twenty drops every two hours, taking the precaution to keep the bowels open with a saline salt. Some prefer alcohol as a lotion but have given us no indications for its use. To prevent spreading, collodion is effective by exerting compression on the parts. When the iron application is called for there are usually indications for the internal use of rhus toxicodendron.

Another class of cases has been most benefited by the local use of sodium salicylate (one part to fifteen of water). These present a pallid, sodden looking condition of the parts, and while of a dead pinkish hue, lack the brilliant redness of those cases

benefited by tincture of chloride of iron. Where there is great heat, cloths wrung out of cold water may be applied over the medicated lotion. When a necrotic tendency obtains nothing equals specific echinacea or echafolta (one ounce to eight ounces of water) locally, and internally fifteen drops every two hours. Some speak highly of a solution of sodium sulphate as a dressing, but I have had no experience with it.

Internally the chief antipyretic remedies are aconite or veratrum, according to known indications. Some cases do well on gelsemium, following the classic guides for that agent. The fact must not be overlooked that in some cases, particularly in children, vomiting may be provoked by it, an accident sometimes following the use of jaborandi or veratrum. Specific rhus has been the agent most frequently indicated. The tense, glistening red skin, the burning and itching, and the pointed tongue with prominent papillæ are unmistakable, and few indication-groups have contributed so much to establish the truths of specific medication. Oedema is usually promptly met by apis or apocynum, care being had with the latter that emesis is not provoked. Sulphite and bicarbonate of sodium have been employed in a few cases, with prompt results. The tongue is pallid and usually covered with a foul coating. If there is a cadaverous odor I employ:

℞ Sodium sulphite.....one dram
Potassium chlorate.....one-half dram
Water .....four ounces
Mix. Sig.—One teaspoonful every two hours.

Finally in order to fortify the system against septic absorption and its consequences, in nearly all cases, even though specific indications be not strongly apparent, I administer from five to fifteen drops of specific echinacea at least every three hours during the active stage and less often during the period of convalescence. Few people in good health develop erysipelas, and the use of this remedy as a corrector of blood dyscrasia and to guard against necrotic changes appears to the writer as an eminently rational procedure. In some instances, where the bluish or purplish hue of the skin or membranes are seen, I combine it with specific baptisia and in such cases I have not been disappointed. Should pus form it should be liberated by incision and the parts washed thoroughly with a strong solution of specific echinacea or echafolta and baptisia. If convalescence is tedious, and par-

ticularly if any malarial manifestations appear, I employ the following:

(1) ℞ Quinine sulphate, one dram; hydrochloric acid, q. s. to dissolve; add tincture of capsicum, ten drops; water q. s., four ounces. Mix. Sig.—One teaspoonful every three hours.

(2) ℞ Fowler's solution of arsenic, one dram; syrup of lactophosphate of calcium q. s. four ounces. Mix. Sig.—One teaspoonful every six hours.

The last mixture I employ most largely when there is a tendency to tuberculosis in any of its forms.

DISCUSSION.

DR. PICKETT: The paper seems exhaustive, and there is little to be added. I have used recently sulphite of sodium and echafolta with entire satisfaction. I use the indicated remedy universally.

DR. WHITFORD: I wish to add my testimony to a part of the treatment, but I object to none of the treatment recommended in the paper. Too many things to do is my only critcism. I would give tincture of iron from start to finish—from the first day until cured—10 to 15 drops in sweetened water every three hours. Externally nitrate of bismuth, and if the temperature is high, aconite enough to control it. Some have twenty remedies for one disease, and some twenty diseases for one remedy.

DR. HITE: I am accused of being a specific medicationist in my own state, but I have used a prescription empirically with success; sulphate of quinine and tincture of iron in solution three times a day. I paint the parts perhaps twice a day. I would say the indication is a deep red tongue with a high degree of fever that is somewhat periodic. It will be effective in about ten hours. If you have a temperature of from 103 to 104 degrees when you begin the quinine and iron solution, the next morning you will have a normal temperature.

DR. CLAYBURG: I do not have twenty remedies for one disease and I don't treat twenty diseases with one remedy. I do not believe that anybody ever cured a really bad case of erysipelas in forty-eight hours with anything, but I am a firm believer in the tincture of iron in erysipelas. I believe it antidotes the poison of erysipelas, has a tendency to arrest the destruction of the corpuscles; but you must do something else and use different remedies, and I throw this out as a suggestion. Recently for the

second time in my life I had an experience with erysipelas in a child four days old, the cord having dropped off and everything going nicely, and at 5 o'clock the nurse told me that at 1:30 she had discovered a redness developing about the umbilicus which spread over the abdomen and buttocks. There was a temperature of 104 or 105 degrees. The child lived four days without passing a drop of water, and then died.

DR. BEMENT: One remedy I have not heard mentioned is distilled hamamelis. There is no stain left after its application.

DR. BROCKMAN: In former years I used tincture of iron for a local application, and my attention was called to carbolic acid, and for the past five years I have been using that. I had a case of traumatic erysipelas three years ago. The entire limb from the knee to the foot was inflamed. I used a 25 per cent solution of carbolic acid and glycerine, and the next morning the inflammation was almost gone. You will find this acts nicely if you will try it instead of the tincture of iron. In a case just developing I apply a 95 per cent solution of carbolic acid, which I find effective, if not too large an area is involved. In that case I use from 25 to 50 per cent of glycerine.

DR. FELTER: In regard to local applications, there are myriads of them used by various people, among them carbolic acid, boric acid, ichthyol, etc. As for the administration of iron being unpleasant, if you will incorporate it with tincture of orange, you will have a drink as pleasant as lemonade, and the patient will cry for it.

PNEUMONITIS—ITS SPECIFIC TREATMENT.

WILLIAM P. BEST, M. D., INDIANAPOLIS, INDIANA.

Pneumonia, lung-fever, croupous pneumonia or any one of the fifteen or eighteen synonymous expressions, each with a shade of meaning to no one but really learned and skillful clinicians, has come to carry terror to the hearts of anxious relatives and interested friends of the person afflicted therewith—second only to some of the most dreadful pestilential diseases.

The mortality tables of the daily vital statistics, the records of some of the most noted and erudite practitioners of the healing art, the discouraging reports of the small per cent of recoveries given by authors of wide experience and vast opportunities for observation and treatment, afford professional men as well

as the city medical authorities in general, ample reason to fear this disease.

At present, the etiology of pneumonitis continues to afford a topic for learned discussion, both for and against the theory of bacteriologic invasion, and as this, as yet has not reduced the mortality to less than 21.2 per cent according to recent hospital reports, we may leave this much discussed problem for later consideration by those who satisfy themselves with theories as to cause, when unable to do so by the results of their treatment.

A careful analysis of a case of pneumonia will open the way to a consideration of the actual conditions present, and we believe, suggest a reasonable and specific manner of meeting them so as to afford relief and restore the fine balance of functional life, which we are pleased to call health.

The clinical picture presented by this disease is more or less characteristic. The variations represented by the development of different symptoms in individual cases, are usually prominent and speak plainly to us, of the means necessary to meet them in a manner we call specific, because of the prompt relief which the proper and careful application of such means affords.

In this as in most all acute diseases, the prodromata become a part of the history of the attack to be related by the patient when first seen by the physician. Pain, dyspnoea, and cough are usually the three chief clinical factors presenting, and these with or without the many and varied complicating symptoms, go to make up the pneumonic attack from the simple to the most aggravated and complicated disease.

The specific treatment of this, as in all diseases, presupposes an understanding of the pathological conditions existing, and the application of the remedial agencies, not to the name, pneumonia, but with an eye to the removal of the exact conditions.

We then shall profit by looking beneath the surface—and as we do so, note all the conditions as we progress from the exterior, inward, whether we go via the chest wall or the throat, or both.

We have a dry, inactive skin, caused by a derangement in the equilibrium of the heat-producing and heat-distributing forces; beneath this, the muscular portion of the pneumonic apparatus is doing extra duty in the efforts made by nature, to compensate for a decrease in the purifying of the blood, a portion of the lung being unable to make the exchange of oxygen for impurities.

The heart, in its efforts to meet the demands made to restore good circulation through obstructed blood vessels, is working rapidly and laboriously. If the process of disease be near the pleura, it becomes inflamed and the normal easy, gliding movement it affords between lung and chest wall is roughened and painful, the capillaries, the most important portion of the circulatory apparatus in the accomplishment of nutrition and removal of waste are dilated and engorged, rendering the lung tissue heavy, darker colored, and by pressure, narrows or obstructs the lumen of the alveoli, which naturally embarrasses normal breathing. To reverse the course of our observation we may say we have: inflammation, heat, redness, pain, swelling, embarrassed breathing, dyspnoea, obstructed circulation, necessitating rapid and labored heart action, attended with increased nerve derangement in the whole system, by disturbance of normal thermal conditions, waste and nutrition. Complications may—many times do arise—the continuation of the disturbance increases the seriousness of the embarrassment of vital processes, and pneumonia in all its stages and seriousness is now before us.

Something brings about the primary or basic conditions we see in the above analysis. If the pumping machinery of a water system is embarrassed by an obstruction in the discharge pipes, or the pipes which supply the pump, what should be done? Shall we build bigger fires, increase the power, and ruin the machinery by futile attempts, or shall we by well-directed efforts remove the obstruction?

The best relief is the easiest, with best results. The engorged blood vessels obstruct the circulation by pressure, lessen areation of the blood, which the excited heart makes futile attempts to drive onward and indirectly increases the danger and annoyance by forcing in more blood.

At this stage we choose aconite or veratrum—why? By their kindly influence the vasomotor nervous system regains control and the blood vessels are given better tone, the obstruction is relieved and the circulation begins to resume its normal rapidity and perform its customary duties, the excretory organs clear away the rubbish that threaten a wreck, and we see our patient rapidly relieved of one of the most threatening sources of danger.

Experience and observation teach us that aconite acts most promptly and specifically when the conditions are such as produce the small, rapid pulse, and veratrum when the pulse is full, strong and frequent.

The element of pain may or may not be prominent, but when the pleura is involved and the sharp, quick pain causes short, jerky inspiration, and the cough is agonizing because the motion increases the severity of the pain, we will add bryonia to our four-ounce mixture of aconite or veratrum, or use it alternately with the one or the other from another glass. Bryonia, why? In this agent we find the engorgement and effusions more readily removed and it exerts this influence in such a direct manner as to relieve cough, pain and anxiety and unrest attending them. With bryonia, the patient has more rest and comfort, and the relief it affords to the irritated nerves allows the energy to be expended towards recovery and aids directly in attaining this, while opiates only narcotize and stupify both nerves and excretory organs, increasing the existing embarrassment. Under the persistent influence of bryonia, we see pleuritic effusion disappear, harsh, dry cough mitigated and the torturing pain of pleurisy or pleuro pneumonia relieved, with none of the depression attending harsh or heroic medication.

Ipecac exerts a specific effect on the mucous membranes. It controls irritation and aids in the relief of engorgement, or inflammation. To accomplish this result it must be given in the minute dose. The beginning stage of pneumonitis is usually attended by an irritation of the mucous membranes which are dry and excite a persistent cough. The minute dose of ipecac quiets the irritation and restores the secretion and unless the case progresses to the stage of hepatization the cough is greatly ameliorated.

Asclepias is a remedy which affords much relief, when the skin is struggling to resume its action. It gently aids diaphoresis, affords comfort, eases pain. To those unacquainted with this simple specific treatment of pneumonitis, the rapidity and certainty of the relief would perhaps, seem incredible. Yet strange as it may appear, many of these cases, when seen early, before the stage of hepatization, will in from forty-eight to seventy-two hours, clear up and convalesce. In a number of cases I have witnessed surprisingly quick relief when a temperature of 104 degrees, pulse very rapid, from 120 to 144, pain and cough causing excruciating suffering and the crepitation showing unmistakable evidence of the character of the attack, enter convalescence at the end of the second or third day.

Auxiliary means are not to be overlooked. Dry heat to the

parts if the child be very restless, place a woolen or cotton-lined jacket over the chest. Compound Emetic Powder on a greased cloth has been of much service in the past, and promises much for the future.

Antiphlogistine and mustard plasters in some asthenic cases, and an eye to the warmth of the extremities, even when the body temperature is high.

If the child be croupy, as evidenced by the cough, the addition of Compound Stillingia linament will afford much relief. If there be a sense of weight, tightness or dyspnoea be persistent, the addition of ten drops of specific lobelia will greatly comfort the patient by inducing normal enervation, circulation and secretion.

A dirty white tongue, heavily loaded, is unmistakable evidence of the need of an antiseptic of an alkaline character. The sulphite of soda in from three to five grain doses, will often not only remove this condition, but clear the way for better results from other remedies.

A foul odored or prune juice expectoration, or a dusky discoloration of the mucous surfaces calls for echinacea, and its exhibition shows good results in an active flow from the kidneys. It is antiseptic and an active depurating diuretic. In typhoid pneumonia we have no better remedy.

Rhus tox. is a remedy that is frequently of much use in the disease under consideration. The long, pointed tongue with enlarged papillæ, or extreme restlessness, attended with stinging or a pricking sensation of the skin, indicates the use of this remedy. It relieves the nervous condition manifested in the derma, and thereby promotes comfort by better skin action.

Gelsemium will quiet the patient whose eyes are bright, pupils small and face flushed by relieving the nerve tension and restoring a more equable circulation in the cerebral centers.

Belladonna, when relaxed tissues, especially capillaries, allow congestion to occur, seriously embarrassing the functional life, aids in equalizing blood distribution, but must be used as indicated. For pleuritic effusion, with weak heart action and relaxation of the tissues, apocynum is a positive specific, strengthening the heart, giving tone to the tissues and readily relieving the embarrassment by removal of the effusion.

The use of strychnia, caffeine, digitalis and other stimulants had better be held in reserve—in fact you will not misuse them

when prescribing specifically for they then are used only for a specific purpose and if the case is curable, as we understand the term, it will respond and do well.

In conclusion, we will add that when seen early, two or more of the first four remedies named—aconite, bryonia, ipecac and veratrum, are usually all that are required in the treatment of this disease. In an experience covering fifteen years, we have lost but one case of acute labor pneumonia, and another where pneumonia followed measles, convalesced from the two and later died of meningitis. So that really two cases cover the loss by this disease.

THE SYMPTOMS OF LOBAR PNEUMONIA IN THE AGED.

N. A. GRAVES, M. D., CHICAGO, ILLINOIS.

I have chosen to take up some of the peculiarities of pneumonia in the aged, and particularly its symptomatology.

While a typical pneumonia is very easily diagnosed, the atypical forms are often puzzling, and it is with difficulty that a positive diagnosis is made. Taking up the earliest symptoms of this disease in the aged, we must consider first the *prodromes.* These are present in most cases and usually are quite characteristic. Languor, weakness, headache and wandering pains are usually met with. The onset is rarely abrupt as in the young adult.

It is unusual to have a sharp chill in the aged. More frequently a creepy or chilly sensation is complained of, lasting for a few minutes. When an old person has a chill without easily discoverable cause, pneumonia should always be suspected and looked for. The fever in pneumonia of the aged is low, rarely above 100 and frequently there is an absence of fever much of the time. In a few cases, however, the temperature may be 103 or more. Rectal temperature is higher than mouth temperature and if the tongue and mouth be dry, the former is the only reliable method of determining the fever. I well remember a case in which the attending physician found no increased temperature per mouth, but when the thermometer was used in the rectum it registered 103 degrees Far.

One common characteristic of the pulse is its full, bounding character and its irregularity. In most cases it intermits one to ten beats per minute. In some cases it is soft, weak, and easily compressed. If the blood vessels are markedly sclerosed, the pulse should be counted at the heart. In frequency it is from 70 to 90, rarely over 100.

Pain is diffuse and often complained of as a dull, aching feeling referred to the back or sides, frequently to the abdomen. Very rarely it is sharp and lancinating, as in young people. The patient may have no pain or pain may be elicited by having the patient take several deep inspirations.

The cough is often absent or so slight as to escape observation unless attention be particularly called to it. When present there is at first little or no sputum. After three or four days the cough may increase and the sputum be streaked with blood, "rusty," or yellowish in color and large in quantity. Cough, when present, is usually hacking in character; sometimes it is severe.

Respiration is increased from 24 to 48 or more. It is "panting" in character and is not accompanied by dyspnœa. This is an important point of the diagnosis.

The cheeks are usually flushed. One cheek may be much more so than the other. This symptom is usually present and may be one of the earliest and most persistent objective symptoms. The skin is often congested. The face frequently looking red, with the eyelids cyanotic. When exhaustion is great, the face may be pallid and the lips inclined to be blue.

Delirium in the aged is frequently present and is of a low form —never maniacal. Headache and vertigo often persist throughout the entire course of the disease. There is anorexia early and persistent; the bowels are often loose and the crisis may be indicated often by diarrhœa, sweating and great weakness. The tongue is usually dry and often red and broad, sometimes flabby.

The urine is scanty, usual albuminous, containing a large excess of urea.

The physical examination of the aged pneumonic in the early stages is frequently fruitless. The bony hardness of the chest wall, the sclerosis of the bronchial tubes and the frequent emphysemas, make a very careful examination necessary. If examination by careful palpation, percussion and auscultation is done, we are usually able to find the pneumonic spot. The patient

should breathe deeply when auscultating and we must not expect such decided dullness on percussion as is found in the young adult.

Sudden deaths from pneumonia are much more frequent in old age than in the young. Loomis makes the broad assertion that 90 per cent of all deaths after 65 are due to lobar pneumonia. Certain it is that very many cases of sudden death have been caused by pneumonia; the patient and friends believing the disease only a slight cold. We should warn our older patients against neglecting a simple cold. Gangrene of the lung is a termination of pneumonia which occurs occasionally. It is of greater frequency in the aged than in the young.

The treatment of pneumonia in the aged does not differ from the treatment of the younger patient, except that convalescence is always established more slowly and there is not frequently an abrupt crisis. Three to four weeks is a short time for an aged patient to be sick with pneumonia, and one must be careful never to hurry convalescence. Let the patient remain in bed a few days too long rather than to run the risk of extension or return of the disease.

One-fifth of all the deaths in Chicago during the past few months has been due to pneumonia. This is also true of New York, as shown by the published statistics. It may be somewhat difficult for the practitioner of general medicine in a small town or the country to understand how these cities can have such a frightful mortality when his statistics will show a loss of very few cases during an entire year. The solution, however, is easy when once the circumstances are understood. The mortality from pneumonia in Chicago is due, not to over medication, as may perhaps be thought, but to *no medication.* It is the extreme poor of the large cities, exposed to the sudden changes of weather, without proper food or clothing, without attention from the physician, which make this death rate appear so large. Many of these are alcoholics brought to the hospital in a dying condition. Not a day passes in the Cook County hospital of Chicago, during the pneumonia season, in which from one to six cases are not admitted and die within a few hours. The post-mortem reveals the cause as pneumonia. If these cases were seen in time, very many of them would get well, but it is safe to say that one-half the deaths from pneumonia in our large cities, is due to poverty, neglect and whiskey.

Just how this can be overcome I do not know. If people could be educated to go to a physician or hospital at once when taken sick, the death rate would be materially lowered. It is a problem for our health boards. The Health Department of the city of Chicago publish every year a circular on the "Hot Weather Care of Infants and Young Children," and undoubtedly it has had much to do with the reduction of child mortality. A circular of the same kind relative to the "Early Care of Coughs and Colds" during the pneumonia season ought to be of as great benefit in the prevention of pneumonia. It could at least do no harm and might be productive of great good.

PNEUMONIA AND PRACTICE OF OLD.

H. WOHLGEMUTH, M. D., SPRINGFIELD, ILLINOIS.

I may be allowed to call your attention to what my observations and experience have been during fifty-eight years of active practice in the medical profession. Pneumonia, lung fever, as it is commonly called, has of late been prevailing to a considerable extent, and has not been confined to any certain locality, but has extended over a large portion of our country. It has caused considerable concern and fear and has proved quite fatal, judging from the mortuary reports and physicians' observations, which show that the per cent of deaths has been very great. Naturally inquiry is made: why is this so, and how is it the disease should be so extensive and alarming and prove so fatal? To enter into a discussion and assign the various causes inducing lung fever, or probable causes, may be deemed unnecessary. We are aware that the most predominating cause is exposure to cold in various forms, superinduced greatly by climatic and atmospheric changes, as has been the case during the long, continuous and unusually cold winters of 1903 and '04, and sometime previous, when pneumonia has been prevailing. It has been within my province, during the long years of active practice, to have passed through many seasons of epidemic and contagious diseases, but at no time have I known so large a mortality, as the result of pneumonia, as has been shown the past year. Years ago, when our American continent was but sparsely settled, progress in the mode of

living was not as we find it today. Exposures were greater, comforts and luxurious living and advantages that the people enjoy today were unknown. Many people lived in log cabins, with families ranging from four to a dozen children, most of them huddled together in a couple of small rooms, ofttimes having one of the family sick with a severe attack of pneumonia, confined in the same room from one to three weeks, the rest of the family attending the sick, who in due time would make good recovery, and no other member of the family would be attacked with the disease. There were no known microbes, bacteria and the like, as now claimed, to play a part. I have attended many cases under most unfavorable circumstances which finally and fully recovered. There was no haphazard treatment, gentle, cooling medicines of a laxative nature were administered as needed, diaphoretics such as comp. tinctr. of serpentaria, remedies to induce copious perspiration, suitable expectorants to clear the throat and lungs of phlegm or mucus, sweet spirits nitre, aconite, veratrum dispensed in water to control fever, pulse and heart action, sponging and bathing the body with as little fatigue to the patient as possible; light diet and cooling drinks of sugared water; slippery elm, gum arabic water or the like. The breathing of pure air and cleanliness receiving careful attention. In almost all cases the patient would make good recovery.

There was a time in days of long ago when old-school practice of medicine was the only mode of practice known, anything outside of that was considered an innovation. There was a time within the knowledge of the writer of this brief sketch, when blood letting was thought the all-healing remedy for pneumonia, it did not matter whether it be the pleura or it be the substance of the lungs; if there was inflammation within the cavity of the thorax, bleeding was invariably resorted to. Often from twelve to sixteen ounces at a time was taken and repeated in sufficient quantity two or three times in twenty-four hours, and that, too, in full stream, until, as was claimed, a manifest impression on the heart and pulse was made and until a diminution of pain and oppression in the chest subsided. It is presumable, in consequence of such a course the action of the heart became so weak and prostration of the vital powers so extreme it was a matter of chance if the patient rallied at all. Remedies administered were mild aperients, but in most cases active cathartics.

Diaphoretics, such as ipecac and opium, "Dover's powder," expectorants, muriate of ammonia, tartar emetic in nauseating doses, antimonial preparations, doses of calomel came in play. Spanish fly blisters and applications of croton oil over the region of pain was the usual treatment not only for pneumonia but for disease of the chest in general.

Any other treatment or any other course of treatment used by medical men not in accord with the old school of medicine was considered an innovation and quackery. Wonderful changes have taken place in the last half century. Doctors of today do not know nor can they realize what the practice of medicine has been in former years. Physicians of old can look back, reviewing the field fought over to bring about changes in medical practice with satisfaction. Progress made in the healing art is truly commendable and praiseworthy. Bleeding, cupping and leaching and other deleterious medication in the treatment of human ailments is a thing of the past.

One thing is to be commented upon: Nearly all have laid aside the lancet and no longer practice bloodletting. The reason is plain, as admitted to me by a very able and honorable gentleman of the medical profession, who said: "I would still bleed, but doctors dare not do it, people know better, they will not allow you." Leaving off the one extreme the question arises: Is not the mode of treatment in lung fever now going to the other extreme? In the use of arsenic, strychnia, dynamite, alcoholic stimulants, either by mouth or hypodermically, and then as a last resort the administration of oxygen gas? From all acounts, results in this practice have been unfavorable. There is too much of "Specialism" going on, too much and too many theories and fads in vogue. I, for one, cannot endorse this so much talked about "bacteria bacilli" and "microbe" and "tuberular serum" fads, and many other fads, together with more than a thousand remedies put on the market, advertised as all healing panacea for disease. There is too much for gain, and not enough science, in elevating the practice of medicine. "State Boards of Health" are a failure in this particular.

But to come back to the matter under consideration. It has been my province to attend many cases of pneumonia and that, too, successfully, with a loss of a small per cent. I never have resorted to blood letting or heroic treatment. A mild course of treatment—watching nature in all of its bearing, observant of

complication, meeting emergencies as best I could. There is not any one remedy that will be efficient in all cases, neither in quality nor in quantity. The remedies mostly relied upon I have already stated, and they have proved successful in my hands. This is the course of treatment I still pursue.

DISCUSSION.

DR. CHURCH: Judging from what has been said before, I shall throw out a suggestion that will meet with general disapproval. My opinion is that pneumonia is an infectious disease; that it is due to germs, such as we hear so much about. In my opinion, the germs obtain a foothold in some portion of the lung. They are breathed in, and they are opposed in their life process to the normal condition of things, and there is immediate disturbance. Nature sets up an irritation in that locality. There is an immediate determination of blood, the part becomes congested, and the blood brings food for these invaders and they are increased. How does Nature go to work to shut this off? There is immediately afterward poured out all about this process thousands of white corpuscles of the blood that produce consolidation. The effect is to dam up this part of the lung and shut off the blood supply. They make a Port Arthur. The leucocytes are the great reserve force or power to resist infections. They shut off the blood supply and in this way starve out the invaders. We should sustain the patient and save all the blood and all the leucocytes.

DR. DUVALL: If in the treatment of pneumonia we will recognize the one point as to whether it is caused by a specific or simple infection, the treatment will be more rational. If simple, we can depend upon veratrum, and hot packs, and cold packs; if specific we must look to antiseptics and select such as will antidote that poison if we can tell which it is. I have had some cases tubercular in their nature, and others caused by the staphylococcus, and have broken them up in three or four days by phytolacca and echinacea. Where the tendency is to tuberculosis we should not neglect the antiseptic.

DR. BAIRD (of Kansas): I believe for immediate treatment there is nothing better than aconite and veratrum. In one case it may be a simple inflammation, and in another a septic disease to be treated antiseptically, but we first have the simple inflamma-

tion. In connection with these remarks, I would like to know the symptoms of the complication with measles.

DR. WIGHTMAN: The question has been brought up whether this is an infectious disease. Prosken states these (microbes) are not found in twenty out of eighty cases of pneumonia, and we all know that pneumonia sometimes develops within twenty-four hours. A boy will be well and playing outside, and the next morning will have pneumonia. It is impossible to be microbes. It is simply due to the fact that the surface is chilled, the blood is sent to the internal organs, which suffer congestion to such an extent that the blood escapes and clots, and we have lobar pneumonia, and I do not see why we should use remedies to hasten resolution. Blood clot requires time. It must undergo absorption, and it seems that we should follow the specific indication. I do not believe we have a remedy that will cure pneumonia, because the blood clot will require time for absorption. Bryonia is indicated and should be used in the effusion. We can understand that where the discharge comes from a ruptured pleura, no remedy will smooth that out. In some cases we must depend upon absorption.

DR. HENDERSON: It seems to me from listening to this discussion, and from reading the journals on this subject, that some of us are forgetting what we learned in college, and that we are treating the disease instead of the patient. You have heard something said here as to microbes. I expect I am a crank on a good many subjects. One is bacteriology. I have no faith in it. I do not believe all our laboratories and all the workers who have discovered this vast hoard of microbes of which we hear and read, have ever saved the life of a patient. I look upon the pneumococcus as a scavenger. Some of you older men here who graduated from the E. M. I. back in the 80's will remember how Prof. Scudder pounded it into us day in and day out upon the practice of medicine. What he said about the increase of tonicity, irritability and depression, etc., through the whole list of causes of diseases on which he so intelligently lectured. We know what he told us of morbid anatomy. He told us that this is a disease of the greater circulation. We cannot have an inflammation of the venous blood. The lesser circulation is involved only secondarily; it is a disease primarily of the greater circulation, before the capillary disturbance of the pulmonary tract. Veratrum lowers tonicity. That explains why we get

erysipelas from the softening of the skin. In studying the pathology, think if it is tonicity or depression, and let the microbes go, you will save your patients. I am proud of my treatment of pneumonia. I have not lost a single patient from pneumonia. When I graduated in '82 and went out to practice, I expected to lose my pneumonia cases. My patients got well. I studied the indications, and my patients got well in spite of me. I asked, What is the difference between me and my neighbor? They treat for this, that and the other, regardless of the indications. There are several who graduated since I did who have told me that they are practically as successful as I am. If it is a surgical disease in which I may find microbes, I clean it out. I do not expect to have any trouble where I get hold of my case in a reasonable time. Look to the larger circulation, not to the lesser. Then study your therapeutics. When we have aseptic conditions we will throw in sulphides and iodides, but because they are indicated, and not because it is a case of pneumonia.

DR. ROBERTSON: I do not agree with the gentleman who has just spoken in regard to the greater circulation. I agree with Dr. Wightman in his statement that we find the blood vessels which supply the lung ruptured. I believe that cold applied to the surface of the body may cause rupture, and I believe the lung, being the most sensitive, is the organ which suffers first. I cannot agree with the gentleman with reference to the microbe theory. I cannot agree that this army of workers in the laboratories are of no avail. I do not know where we would be in the surgical field today if we did not understand bacteriology and understand nature's effort to combat bacteria, how the leucocyte grasps the bacterium and endeavors to destroy it. I do not see how it can be considered useless and unnecessary. Pneumonia is one of the worst diseases we have. In Chicago we lose from 25 to 39 per cent with pneumonia. I do not know whether it is different from that in the country from which he comes, but this is the record of Chicago. I believe the Eclectic school has the best practice; I believe in the specific remedies as the right way to treat these cases. I want to impress you that harm is done by feeding these cases. Harm comes from undigested foods, which are made into xanthin bodies, which are poison.

DR. MUNN: I have a great many cases of pneumonia. I had four in one family, and very severe, and no body to watch, save occasionally a neighbor came in, and all got well. The wife

of an allopathic doctor was sick, and he nor none of his own school were doing her any good ,and he came in to me and said: "My wife has pneumonia; both lungs are congested and the lower lobe consolidated." I put up four drams of sodium bromide, 25 minims gels., aconite ten minims, lobelia 25 minims, to be combined with water or simple vehicle, of this a teaspoonful; give every half hour. The doctors came the next day and examined her and said they did not know what it meant; "the congestion has all gone and the consolidation had broken up. They supposed she was in for a regular course of pneumonia." So far as microbes are concerned, I think it is like the Irishman who saw a dead mule and it was full of maggots. "Ah," he said, "the poor baste, killed by the worms!"

DR. ELLINGWOOD: There is no subject interests me more than this. I have watched this for thirty years from the standpoint of specific medication, and from the treatment given by theorists, and I have studied the pathology, and I am not going to say anything against these methods. The facts they have given us are beneficial, but we must not take that as the entire knowledge. As I said in my report this morning, I think a great deal more of a single demonstrated fact than of volumes of theory. You know as practitioners that *we can cure* a very large per cent of our patients with pneumonia. It is the *individual patient* we are studying. We do not ask what Doctor So-and-so does for pneumonia. We take this individual patient and see what the indications are for exact remedies, and we find our specific indications there, and we give our remedies and have a happy and fortunate improvement very soon. But we do not necessarily treat any two of our cases alike. We must study until we know more of this dread disease. We must know the therapeutics. But what must we then do? It is not the man in the laboratory; it is not the man who knows about the microbes that is successful. Do you know what they report in the large cities with a death rate of 200 cases of pneumonia per day? They report a mortality of 25 to 40 per cent, and they believe that it is absolutely impossible to have it otherwise. There are before me today 300 practitioners of medicine. Is not your experience worth something? Is there a man of this number who ever had a mortality of 20 per cent in his practice? No; not over 10 or 15 per cent, even of the very worst cases. What I want to get at is just this thing. The mass of the profession in the United

States believes that in pneumonitis from 25 to 40 per cent cannot be saved; that that many will be lost.

There are something like 30,000 to 35,000 doctors in the United States who are treating pneumonitis with a mortality of less than 10 per cent, and in many cases less than 8 per cent, and with many hundreds less than 2 per cent, and I am willing to accept the statement of Dr. Henderson and others that they have treated case after case and never lost a patient. I believe it. In my report this morning I said we must do something to create public sentiment. The old school has created a sentiment that it is absolutely necessary that 40 per cent must be lost. The public take up the papers and read the frightful death rate and say, "Isn't it too bad." *We* know that it *can* be helped. It is our duty to correct this sentiment and let the public know there is a better method of curing this disease. Is it not our duty to humanity to let them know that there can be a method of treatment adopted that will have a very much lower mortality than even 25 per cent? I believe it to be our conscientious duty to take some active measures to do that. I have prepared the following preamble and resolutions, and I will make the motion that this be referred to the advisory committee;

RESOLUTION ON PNEUMONIA.

WHEREAS, During the past winter pneumonia has prevailed to an alarming extent throughout the United States, especially in the large cities. The death rate in these cities, notwithstanding the improved methods, for the prevention of the disease, which the health authorities claim to have adopted, is greater than ever before, having been larger than that of consumption, and acute contagious diseases. The reports made by these boards through the public press state that it is impossible to reduce the death rate in this disease to less than from thirty to fifty per cent, and these statements have so educated the mass of the people that they have come to believe that this is true. These health boards are composed of the so-called Regular physicians, who refuse to investigate other methods, except those which they themselves adopt; and

WHEREAS, There are in the United States, at least twenty thousand physicians, practitioners of Eclectic and Homœopathic medicine, as well as at least five thousand physicians,

private practitioners of the Regular School, who treat pneumonia, in both public and private practice, by a method, which is safe, curative and successful, and by which method the death rate is never above fifteen per cent in public and hospital practice, or above eight or ten in private practice, and is even as low with many practitioners as two per cent. Therefore,

Be it Resolved, That it is the duty of the physicians of this body to take measures to impress upon the public by every possible legitimate means, the truth that there are better methods of treating this dread disease than those adopted by the health authorities in the large cities and advised and taught by the faculties of the Regular School in their colleges, and that a death rate, of more than fifteen per cent in pneumonia, at this day of professional advancement, is a reproach to the profession, and is unnecessary, unwarrantable and unjustifiable.

Resolved, That it is our further duty to create a sentiment through the public press, and other media, which shall cause the health authorities to investigate these successful measures, and to adopt a more successful course than that which has been previously advised in the treatment of this malady.

DR. HENDERSON: I desire to amend and move that the association adopt this resolution and refer it to the press committee.

THE PRESIDENT: This amendment is out of order. This association passed an order that every resolution should go before the advisory committee, and this could not be published without going before the advisory committee. This will be referred to the advisory committee.

DR. SPARROW: About twenty years ago I spoke to Dr. Jay, something like the gentleman spoke a while ago, and I told him I had saved every case, and I began to be very proud of my work, thinking I had something with which to cure pneumonia. But we came across a terrible siege of it in Chicago. I had forty-eight cases, and I tried my dead level best; I ransacked the materia medica, and used oxygen, and everything I ever heard of, but five of my cases died—ten and four-tenths per cent. I had trained nurses and gave them my entire time. I have saved most of my patients, but in the severe stages, where the condition of the patient is such that we have no control, they are alcoholic, or probably so senile that our remedies have no effect, and they are lost. So many cases are so far gone when we first see them,

and it is the duty of physicians to teach the heads of families that a physician should be called early.

DR. HERRING: I believe Dr. Graves explained matters in his paper very thoroughly, and I believe his explanation is correct as to why so many fatal cases of pneumonia were reported during the past winter, and that is because a great many are cases among the poor or lower classes who are not able to protect themselves with good clothing and good food and have a low vitality with which to battle and fight the pneumonia. I have had an experience of twenty years of practice and at one time I thought I had pneumonia well in hand, but I found it depends upon the vitality of your patient whether he is going to get well or not, in spite of your good treatment. There is no question about our treatment being the best, but there are cases which cannot be cured, no matter what means you take. The time will come when our treatment will be preventive, before the pneumonia takes hold. We will teach people to take precautions, and then our methods of treating them will be more of a success than the old-school method of treating them, and the mortality of both schools will be less than at the present time. One thing I was glad to note in all the papers read, and that is that none of them had much to recommend in regard to the old style of mush packs and poultices, or even antiphlogistine. I believe that a thing of the past. They do very little good, except in some severe cases where we have a good deal of pus formed which we wish to hasten, but the mush packs are usually useless and in a great many cases injurious.

DR. WHITE: I have practiced thirty-two years and I admit that I can't cure all cases of pneumonia. I have had some very painful experiences in that time, but many cases got well under my treatment. I believe in the specific medication and I use it so far as I know it. We have many cases of non-tubercular congestion that we take for pneumonia, but it subsides and they get well rapidly, but when we get a tubercular case or lobular pneumonia it is a different thing. Where the general health has been good, though they may be very sick with pneumonia, there is a chance, but we need a great deal of stamina when we get a severe case of pneumonia. So far as bacteriology is concerned, I believe we should know all we can. I believe there is much that is right in the germ theory. I do not believe that the germ is the cause of pneumonia. There must be certain conditions in

the lung tissue. I think we must have congestion, and that condition may come from a chill of the skin, before the germ will come in and destroy, but if you have no congestion in a part of the body, I do not think your germ will destroy it.

DR. HITE: I have listened to this discussion with interest. I think in giving our experience we should give our reasons. You must not forget your practice of medicine; you must not forget your specific therapeutics; you must take every case *as a new case,* because if we conclude we have something that will cure it, that leads to laziness and inattention. Another thought: I can see why the allopaths are having pleasant dreams of the absorption of the Eclectic school of medicine. They can see our men catching on to this humbug of bugs, and as soon as we do that they have us completely. I would advise the medical profession to drag that thorn from their flesh, and that they get down on their knees now and ask God to save us from the temptation of bugology.

DR. PERCE: Where I live we have but little of pneumonia, although I had practiced medicine before going to the Pacific Coast. We all know the devil is not a very beautiful creature, yet there are some points about the devil himself. In speaking of pneumonia, and the observations of the allopathic branch, if we see fit to study in the laboratory and take hold of some truths that have emanated from the laboratory, I do not see how that implies the necessity of our becoming allopaths. Neither do I believe that because a man believes in laboratory work that he must give up the Eclectic school of medicine. I believe that if the Eclectic school was better informed on bacteriology we would have better standing throughout the United States. I do not claim that the bacteriology of disease or the pathology of it is all of it. I do know that the information I have gleaned from bacteriology and pathology has been of vast importance to me, from an Eclectic standpoint. I would like to ask Dr. Henderson to answer a question. He stated where we have sepsis with pneumonia, then we give an antiseptic. Why does he give an antiseptic, or why recognize the antisepsis?

(Answer: Because antiseptics are indicated.)

There may be an indication that a man have a good dinner, but he does not always get it. Simply to hide behind the point that a medicine is indicated does not cover the point or always apply. He spoke regarding sepsis in pneumonia, and yet states

he has no patience with any one who takes to bacteriology; and if there is sepsis, how did you get it without germ life, the septic life that causes the inflammation? You cannot have the pus formed without it. It comes from absorption of poisonous materials in the body. It may be the effect of the absorption, but it is not material as to what quantity of pus exists, but it does make a difference how much is absorbed, and that is the point where the sepsis hinges. If there is an absorption, sepsis takes place, and without absorption sepsis does not take place.

DR. WILMETH: One point that should be spoken of in this connection is in regard to the forming stages of inflammation. We know that the primary stage *is not strictly bacterial.* It may be the result of bacterial invasion, or the effect of the toxine on the circulation. It affects the vaso-motors before it affects the circulatory system. In the stages of inflammation you have the different forms of arterial pressure—exacerbation and the retardation; and usually exhaustion comes by the retardation of the circulation, because at that time the tension of the vaso-motors is greater. When you apply your remedies to this tension you do not apply an antiseptic. This septic condition may not necessarily be bacterial—that point is true in the pathology of pneumonia, in the early stages, where the Eclectic treatment is so successful. I do not claim to have the same personal ability that some have claimed, but it is the knowledge we do have of the specific action of remedies and their affinity for parts and their ability to overcome pathological conditions, and that is where we get our results. My success in pneumonia has been that of the rest. I have not had many cases that ran the usual stages of inflammation, and I do not fear it. I have not lost very many cases of pneumonia.

ECLAMPSIA.

WM. J. POLLOCK, M. D., CHICAGO, ILLINOIS.

This disease may be defined as an acute, morbid condition, making its advent during pregnancy, labor or the puerperal state, characterized by a series of convulsions, affecting, first the voluntary and later the involuntary muscles, accompanied by loss of consciousness and ending in coma or sleep.

It is most frequent during the later months of pregnancy; next in order of frequency is during labor and least during puerperium. The average occurrence, given by various authorities, is in from 1 to 300 to 1 to 500 pregnancies.

Among the predisposing causes may be classed the following:

First—Any of the acute or chronic forms of nephritis, the recent "kidney" of pregnancy which is the result of failure of elimination, albuminuria, hydræmia and œdema.

Second—Long-continued and marked retention of urine, especially that produced by pressure on the ureters, which may be produced by an abnormally enlarged uterus, as in twin pregnancies, hydramnios or a very large fœtus; a small pelvis may also be a cause for pressure on ureters.

Third—Very young and very old primiparæ are prone to attacks, on account of rigidity of their muscles, and especially if the person be of slight figure, so that there is a small amount of room in the abdominal and pelvic cavities.

Acting with the predisposing causes we are very apt to find some one or more of the following exciting causes, either a partial or complete sudden suppression of the urine, very painful uterine contractions with prolonged and exhausting efforts to expel the fœtus, profound emotion and constipation.

A diagnosis of the disease may at first seem very easy and simple, but the occurrence of convulsive seizures during the time of pregnacy does not justify the conclusion that we have a case of eclampsia. A diagnosis by elimination from, epilepsy, hysteria, apoplexy and meningitis, any of which may fall to the lot of a pregnant woman, would seem to me a much safer plan to pursue. In epilepsy we have a history of previous and repeated attacks, urine normal in amount, free from albumin and casts, coma more profound, no œdema and absence of any prodromal symptoms except the usual aura. The epileptics fall in the attack suddenly with a sharp cry.

In hysteria the patient is usually conscious, the contractions of muscles are less severe, no coma, they scream, laugh, cry, there is no œdema, they pass large quantities of clear, pale urine and there may be a history of previous attacks.

In apoplexy, which is rare in pregnancy, the attack comes on suddenly, coma early, subsequent convulsions are absent and there are early signs of paralysis.

In meningitis, which is even more rare than apoplexy, the convulsions are usually local instead of general and gradually increase in severity, the general history of the case is of benefit and a fever always preceeds the convulsions. By careful investigation into the history and the examination of urine as to quantity, albumin, blood and casts, together with the clinical picture of the patient before you there should be little difficulty in forming an opinion.

The symptoms may be classed under two general heads: First, prodromal; second, symptoms of the attack. The prodromal symptoms are of great importance to the experienced, as they are certain signs of impending danger. Among the early symptoms are headache, tinnitus aurium, dizziness, amblyopia, epigastric pain, nervous disturbances, and a feeling of general debility. Less frequent are symptoms of stupor, insomnia, vertigo, vomiting, mental excitement or despondency.

The above symptoms may last for a few hours or several days and pass off, and the patient's appetite return, perspiration recur and elimination from the kidneys and bowels again return to normal; but more often these symptoms pass to those of the attack.

The first symptoms of the attack to appear are noticed around the face and eyes. The eyes stare, the pupils at first are contracted but soon dilate widely, and during the continuance of the attack are insensible to light. The face becomes cyanotic, the lips twitch, the muscles about the alæ of the nose and mouth jerk convulsively. The mouth is drawn to one side, the eyeballs roll upward. The convulsive movements are at first confined to the head, but soon extend to the neck and trunk and arms, and very rarely to the legs. The convulsions involve the muscles of respiration and during the spasm there may be one or two spasmodic respirations though the chest muscles are rigidly contracted. The tongue is usually partially protruded and is often bitten very badly and frothy saliva tinged with blood passes from the mouth.

Early in the attack the convulsions become clonic in character, the face becoming horribly distorted, the jaws open and close rapidly, the respirations are irregular and noisy and toward the close of the attack the respirations become full, labored and stertorous and after a few minutes the patient passes into coma.

which may last about one-half an hour, during which time consciousness and sensation slowly return.

It is a usual occurrence for one attack to follow another at intervals varying from a few minutes to four to six hours, and the longer these attacks are apart the more favorable the prognosis.

The pulse is usually small and rapid, the temperature from 100° to 104°, the legs œdematous, face puffy and if two or more attacks follow rapidly the lungs become œdematous.

The urine is usually retained and often contains blood, tube casts and a large amount of albumin.

There is usually a very severe headache.

The treatment of these cases is all-important to us, as physicians, and to me of the greatest importance is the preventative treatment.

I think that we should impress on the minds of our patients the importance of having them under our care during at least the last three months of the term of pregnacy and at least once a week get a specimen of urine for examination; inquire as to the quantity secreted in twenty-four hours, and watch out for such symptoms as a rapid pulse with high arterial tension, loss of appetite, headache, gastric disturbances, and a gradual or rapid decrease in elimination through kidneys and bowels, pain over the region of kidneys, painful urination, and swelling of legs. Should these symptoms become pronounced then the lines of treatment should be followed out under the following heads:

1. Reduce the amount of nitrogenous foods to the smallest possible degree.

2. Eliminate the toxic materials in the intestines and tissues of the body by improving the eliminative action of the bowels, kidneys, liver, skin and lungs.

3. If necessary the source of fœtal metabolism and irritation in the uterus by emptying the uterus.

The reduction of the amount of nitrogenous foods is best brought about by either an exclusive milk diet or, as the symptoms subside or disappear, fish, white meats, fruits and some vegetables may be added, watching the patient carefully as the diet is increased.

For the eliminative processes—that of the skin and lungs by an abundant supply of fresh air, moderate exercise, massage, good warm baths at night, before retiring, and the use of wool

underclothing by the patient. More urgent cases may need the hot pack, the alcohol vapor bath, or small doses of pilocarpine, hydrochlorate, gr. 1-20 to 1-10 every two to three hours until perspiration is nicely started.

Elimination through the bowels can be obtained nicely in the mild cases by magnesia citrate, sodii phosphate, magnesia sulph., cascara aromatica, some of the mild aperient waters, or where we wish to further increase elimination through the bowels by stimulation of the liver by a combination of ext. cascara sagrada, gr. 30; podophyllin, gr. 6; pulv. hydrastis, gr. 30. Mix and make 30 capsules and give one four times a day. Elimination through the kidneys may be promoted by mild diuretics, as specific stigmata maydis, m 10; specific rhus aromatica, m 5; specific hydrangea and others, as the indications in each particular case requires.

Strong arguments have been made by some against bringing on premature labor in order to relieve the patient of the danger of this trouble, but if, after a careful and thorough trial of the means at hand to relieve the prodromal symptoms and I found no relief but, on the contrary, an increase in the toxic condition, I would not hesitate to terminate the pregnancy at once by inducing premature labor.

Next to the preventative treatment of the attack of eclampsia in importance is the *curative treatment* when we are brought face to face with the dread disease. Statistics from various parts of the world place the mortality of the mother at 25 to 35 per cent.

Our allopathic brothers tell us, in their writings, that as the pathology of this disease is not yet clear, that there is no curative, single treatment for the disease. Did it ever occur to them that in all diseases, no matter how well the pathology was known, that the only way to assist nature was by meeting the conditions as they arise, by the proper indicated remedy, and thus by the prompt action prevent the development of the disease or lessen its severity if it had developed.

In the treatment of the attack, the following indications call for our attention:

1. Control the convulsions.
2. Empty the uterus under deep anæsthesia.
3. Eliminate the poisons which probably cause the convulsions.
4. Treat the minor conditions which exist.

In some cases we may not find it necessary to fulfil the sec-

ond condition at once, but may be able to let the labor terminate normally, or, if the attack occurs during the late months of pregnancy, by careful attention to the first, third, and fourth indication as enumerated we may be justified in allowing the patient to go on to full term delivery.

For control of the convulsions the following remedies are most often indicated.

Chloroform by inhalation during the convulsion, or as you see it coming on, in order to prevent its onset. The remedy which I value most highly is specific veratrum, hypodermatically, and especially if the pulse is full, strong and rapid. The initial dose should be 5 to 15 minims and 5 minims may be given every half to one hour till the pulse gets down to 60, as long as it shows strength.

This remedy promotes diaphoresis and diuresis, relaxes and also renders the cervix more yielding and equalizes the circulation.

Among the other remedies which I find of benefit in the control of the convulsion and to relieve nervous irritability is specific gelsemium m ii, spec. passiflora ʒss, natrii bromidi gr. xv, chloral hydrate gr. x, at each dose, and I much prefer the two first named, given per rectum, where there is much irritability of the stomach, which is very commonly the case. These medicines can be repeated every two to three hours, as necessary. Cold applications to the head and neck aid in controlling the convulsions and are very soothing.

If these remedies fail to completely control the convulsion do not hesitate to *empty the* uterus under anæsthesia, as reports of cases show that in about 90 per cent of the cases the danger is practically over as soon as the uterus is empty, especially if done early in the attack.

The uterus may be emptied in any one of the following ways:

1. Mechanical dilatation of the cervix.

2. Deep incisions of cervix, which makes a surgical case of it at once and may aid to rapid delivery.

3. The combination of the two above methods. The method which I most approve is a careful dilatation of the cervix by sounds, followed by Godell dilator and then by bimanual dilatation until the os is fully dilated. As soon as dilatation is complete forceps may be applied and the child delivered, or if this

cannot be done readily podallic version may be resorted to and the child delivered.

Elimination of poisons which probably cause the convulsions is best brought about by increasing the activity of all the eliminative organs.

High colonic flushings, and if the patient can stand them the administration of active cathartics, as elaterin, magnesia sulph., magnesia citrate, etc., as the patient may require.

Diuresis is best obtained by dry cups over kidneys, followed by hot fomentations, together with the use of diuretics, as mentioned in preventative treatment.

Elimination through the lungs and skin can be followed out in the treatment of the attack, the same as in the preventative treatment, except that the use of pilocarpine must be watched very closely, if given at all, on account of the tendency toward œdema of the lungs and glottis.

One other condition which is quite constant is a very severe headache, which can best be controlled by cold packs to the head and the use of spec. gelsemium and specific cannabis internally.

The patient should be kept in a recumbent position, the skin bathed freely, catheterized every six hours to prevent re-absorption and kept on a milk diet. The room in which the patient is kept should be large, airy and comfortable. Other conditions should be promptly met with the indicated remedy. If the patient is watched carefully and treatment carefully carried out the percentage of mortality can be greatly reduced.

ICHTHYOSIS.

CHARLES H. MERRITT, M. D., ALTON, ILLINOIS.

Ichthyosis, according to our best authorities, is an hereditary or congenital hypertrophic disease, characterized by rough, dry, scaly skin, sometimes papillary outgrowths. These lesions usually appear over the complete surface of the body, but again may develop only in isolated areas. If mild in character, the disease is known as ichthyosis simplex, if severe, ichthyosis hystrix.

The case I presented to the association shows the classical symptoms of the latter form, ichthyosis hystrix, the difference

being one of degree. Ichthyosis generally appears as you see it here.

We still have another form which is congenital and is very rarely seen, developing with intra-uterine life. The child is usually prematurely born. If alive it is small and weak, more or less deformed, and usually dies in a few hours or days. The skin is mapped, furrowed, inelastic, fissured and dry.

Ichthyosis hystrix is an exaggeration of the milder form of the disease and may develop as localized patches or be distributed unequally over all parts, sometimes following nerve trunks alone —ichthyosis linear neuropathica.

In ichthyosis hystrix the parts affected is an area of irregular or polygonal masses of all tints, often greenish or black; these masses when removed show dry and shriveled skin beneath, sebaceous ducts distended with sebuin are to be seen; sometimes the patches present are horny and warty in appearance, with spinous processes.

Ichthyosis usually manifests itself about the second year after birth, but is sometimes seen during the first few months. In some instances the disease affects the palms and soles only. A case of ichthyosis plantaris has been reported by Dr. Allen Johnson, in which the horny growth reached a thickness of nearly one-half inch. The disease usually affects the entire surface of the body, the thick, rough, scaly condition being especially prominent on the tensor surfaces, the contrast being notable in comparison with that of flexor regions which are more or less free from incrustations. The scalp is dry and rough, hair rough, dry and brittle with little lustre. The face and skin is more or less mapped and furrowed, eye-lids often covered with crusts and scales, sometimes nearly free from any thickness.

These patients are usually thin, the skin is very sensitive to atmospheric changes and in cold weather is very irritable, cracks easily and oftentimes accompanied by some itching, which is never marked. Sometimes small polygonal plates form, resembling those of an alligator skin. Dr. Fox has reported such a case. The disease, with few exceptions, is chronic from the beginning, lasting a lifetime. Good general health is not incompatible with its course and development, but it is always exaggerated in the winter time. Some cures have been reported following acute and infectious diseases, as measles and scarlet fever.

I wish to say that the case here presented has just passed

through both measles and scarlet fever; you can see the results.

The dry, rough, scaly condition of the skin, piled up hypertrophied papilla, its distribution, the dull white appearance of the surface beneath, together with the history of the disease, its congenital or hereditary nature are factors sufficient to distinguish this disease from all other allied conditions.

The pathology differs with the degree of severity found present. The epidermis is usually markedly increased, with many heaped up lamella. The mucus layer is more or less hypertrophied, papilla enlarged and infiltrated with cells, blood vessels enlarged, glands and follicles show little change. Newman in addition to other hypertrophic changes found the cutis thickened and its connective tissues condensed in bands, glands dilated, particularly the sebaceous, which had a cyst form and the sebaceous fat diminished. In some cases the epidermis formed lamellæ, the color varying from yellowish to brown and the hair follicles and sebacious glands absent. Kaposi has also reported a case with an absence of the sebaceous and sweat glands complete.

Ichthyosis is congenital or hereditary and is found in all parts of the globe, and is a disease of all races, occurring in male and female alike. It can be transmitted from either father or mother, these parents or children affected enjoying, exclusive of this deformity, the best of general health. In some families several children may be affected while in others, only one of several children will show any lesions or taint.

When the affection develops, it gradually increases until adult age, then continues with little or no change the remainder of life.

Shoemaker recommends arsenic and nutritive oils as the only treatment which appears to make any impression upon the disease, the persistent employment of these agents will produce beneficial effects upon the integuments, which is, however, by no means permanent. Pilocarpine in small doses is also recommended. Thyroid extract has been employed with beneficial results.

Local treatment is of most importance. Agents should be used to soften and remove the hardened epidermic masses which at the same time will favorably influence the skin. Water should be used freely for this purpose, with green soap. The alkalies are especially recommended, hot air or vapor baths are of much value in severe cases, oily substances should be used after each

bath to protect the surface and aid in its nutrition. The following are of most frequent benefit: Oil of ergot, oil of sweet almonds, oil of corn, linseed oil, benzoiated ointments, glycerine and rose water, suet, etc.

THE PATHOLOGY AND NON-SURGICAL TREATMENT OF APPENDICITIS.

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Until comparatively recent years, the affections that we now recognize as due to an inflamed appendix, were classed under the terms typhlitis, perityphlitis or paratyphilitis, or more vaguely still, "inflammation of the bowels," and it is largely due to American surgeons that the real origin of these cases has been worked out. It is now practically admitted by clinicians and pathologists, in the English-speaking countries at least, that the vast majority of the cases of typhilitis are to be attributed to a diseased appendix.

With regard to etiology, appendicitis is much more common in males than in females. Most cases come to operation between the ages of twenty and thirty years, but where previous attacks have occurred they have frequently taken place between the ages of ten and twenty years.

There are several reasons why the vermiform appendix is particularly liable to disease. It is the relic of what was probably a large cecal pouch, and there is considerable evidence adduced to show that it is still passing through a process of gradual involution. In 400 appendices obtained at post mortems, a pathologist of high standing found that 25 per cent showed evidence of retrograde, and atrophic changes in the absence of any indications of previous inflammation.

In this brief paper it is not my intention to go into the minute pathological conditions of appendicitis, merely giving the classifications according to the extent of inflammation. From a practical as well as a scientific standpoint, it is advisable to classify appendicitis into (1) catarrhal, (2) ulcerative, (3) obliterative, (4) perforative, (5) gangrenous; and it is my opinion, that the average physician in general practice cannot define the exact pathological conditions, for this reason, the conservative physician depends largely on nature to affect a cure. Statistics have

proven that 85 per cent of all cases of appendicitis will recover without surgical interference.

With these facts before us, and from my own personal experience in the non-surgical treatment of appendicitis, I am confident of the fact that if all cases of appendicitis would have the proper and rational medical treatment from the onset of the inflammatory condition of the appendix, but few cases would need surgical treatment. The most important point in the treatment of this malady is the early diagnosis; then the patient should at once be put to bed, and the bowels thoroughly washed out with sulphate of magnesia; not merely moving the bowels, but the salts should be given in one to two large tablespoonfuls in large tumbler of hot water every two hours until the intestinal tract is free of fecal matter and gases.

By this complete depletion of the alimentary tract in the early stage, the inflammatory condition of the appendix is checked within a few hours, the salts having a special physiological action on the intestinal circulation, lessening the blood supply to the cæcum and connective tissue involving the appendix. I have known the temperature to drop from 103½ to normal, in eight to twelve hours' time, following the administration of the sulphate of magnesia. The magnesia not only depletes the intestinal tract, but prevents auto-infection.

After the bowels have been washed out with the magnesia and hot water, the patient should have absolute rest in the recumbent position to relieve the pain. I always have a flannel wrung out of hot water and applied and I also apply warm lard and turpentine over the ileo-cecal region. The application of lard and turpentine every four to six hours, and the flannels wrung out of hot water every hour has the effect of relieving the pain, and the patient and friends have the satisfaction of knowing that there is something being done.

As to medication, the patient should be treated strictly as the individual case indicates, selecting the indicated remedy. As a rule, the cases invariably call for antiseptics, as sulphurous acid, muriatic acid, sulphite of soda, or echafolta, where there is blood deprivation. While there is elevated temperature, aconite and ipecac, veratrum and ipecac are usually indicated to quiet the bowels, after they have been washed out, as stated. I usually add one dram of the tincture of opium to four ounces of the sedative solution. The opium, combined with the sedative, acts

as a diaphoretic, as well as relieving pain and controlling the bowels.

As to the diet, the patient should have liquid foods, as Armour's extract of beef, panopeptine, beef tea. Milk should not be given during the early stage; after the fifth to seventh day milk, beef and barley broth may be given, and the patient should be kept in bed at least two weeks. The bowels should be moved every other day with sulphate of magnesia, if there is any tympanites. The sulphate of magnesia is the sheet anchor to prevent peritonitis at any stage of the disease. I am confident that 95 per cent of all cases of appendicitis, if diagnosed within the first eighteen to twenty-four hours, and put on the treatment herein laid down, will recover without a surgical operation.

I am happy to say that I have successfully treated a number of cases every year, during my twenty-four years of active practice, and positively say that I have never had a patient die from appendicitis, or have I turned any of my cases over to any other physician or surgeon for fear that they would die on my hands. During all my years of active practice, I have had but one case that demanded surgical attention. In this case pus had formed and was walled off. A free incision was made in the abdominal wall over the pus tumor. The cavity was irrigated with hot, sterile water, and the patient recovered.

The time has come and gone. The fad has had its day for the early amputation of the appendix, for every acute attack of inflammation, many lives have been sacrificed by the meddlesome surgeon who is eager for his fee, and in his mad rush to gain surgical reputation.

THERAPEUTIC TREATMENT OF APPENDICITIS.

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This subject is one of profound importance, because the surgical method of treatment adds a traumatism to the original disease, the surgical shock often proving disastrous to the patient, to say nothing of the other sequels, as peritonitis and septicemia, that may follow. I have treated twenty or more cases of this disease therapeutically and I believe this part of the treatment of such cases to be of more interest to the majority of physicians.

and infinitely more profitable to the great majority of sufferers from this disease.

Pathologically considered, there are three forms of appendicitis: First, obliterative, in which the appendix may become occluded at its proximal end and dilate into a cyst, or its lumen becomes entirely obliterated, or ulceration and perforation occur, or the inflammatory process may terminate in resolution. Second, ulcerative, in which the ulceration may heal with or without the formation of a stricture, or it may perforate; and third, *interstitial* appendicitis, in which gangrene, usually limited, occurs, followed by perforation and peritonitis. Fecal concretions often, and foreign bodies more rarely, play an important part in mitigating ulcerative or necrotic changes.

The majority of cases occur between the ages of the fifteenth and thirtieth year of life, although no age is favored by exemption, and about four-fifths of the cases are in males. Etiologically considered, important predisposing causes are falls, blows, excessive physical exercise, fatigue, improper food and digestive disturbances, fecal concretions or foreign bodies, exposure to cold, typhoid fever, etc.

According to the intensity, frequency of attacks, and duration of the disease, three clinically determined variety of cases are recognized., viz., acute, chronic and recurrent.

The symptoms of acute appendicitis begin, in a large majority of cases, with sudden abdominal pain, at first diffuse, later localized over the appendix, with nausea, vomiting and frequently constipation; circumscribed tenderness in the appendicular region, and fever. Pain may be colicky and sharp, or dull and aching. It is most often diffuse at first, but in twenty-four or forty-eight hours it settles in the site of the appendix, from whence it may radiate into the testicle or down the right leg. Nausea and vomiting, which in mild cases are neither severe nor prolonged, are common at the outset. Constipation is usual and may be so obstinate as to simulate obstruction. However, there may be an initial diarrhea, especially in children or in early adult life.

Palpation reveals localized tenderness, generally situated at McBurney's point, which is a point corresponding to the right edge of the rectus muscle, at a given point. The base of the appendix lies at the middle of a line drawn from the anterior superior spine of the right ilium to the umbilicus and the right edge of the rectus muscle.

However, in exceptional instances of an unusual location of the appendix, the tender point may be found in the right groin or deep in the pelvis, or in the left iliac region, umbilical, right hypochondriac and right lumbar regions.

Rigidity of the right rectus muscle is another important symptom early found and which, because of its one-sided character, is determined with ease.

The tumor may or may not be palpable after twenty-four or forty-eight hours. It may be quite absent, even in the very worst cases. When present, it may be an indefinite induration, or a circumscribed mass, and its extent and character are often obscured by the extreme tenderness and rigidity present.

Fever is an important diagnostic symptom, varying from 100 to 102 degrees. A chill at the onset may occur. When an intense diffuse peritonitis, or a gangrene appendix is present, or an abscess has formed, the temperature may be normal, or even subnormal.

In general there are three eventualities in every case of acute appendicitis; viz., resolution, formation of abscess, or diffuse peritonitis.

However, with the treatment that I shall recommend in this brief article, assiduously used, I am happy to assure you the most of the cases thus treated in the first twenty-four or forty-eight hours of the attack will eventuate in resolution. Such has been the universal result in my limited experience.

As evidences of suppuration the fever persists, pain increases, the tenderness covers a wider area, especially downward toward the pelvis, constipation becomes more obstinate, and frequent urination, or retention, is common. After the abscess has been walled off by nature's efforts, these general symptoms become ameliorated.

Diffuse peritonitis, following perforation of the appendix, or rupture of an abscess, is indicated by the following symptoms, viz., extreme and diffuse pain, a rigid and distended abdomen, nausea and vomiting, rapid pulse, dry tongue, anxious countenance, and often a normal or subnormal temperature.

To recapitulate, the symptoms are acute pain in the right lower abdomen, localized tenderness with or without tumor. Fowler has well said that, "pronounced tenderness in right iliac fossa is almost as pathognomonic of appendicitis as rusty sputum is of pneumonia." However, if the symptoms are obscure, we

may, in our effort at diagnosis, be called upon to differentiate renal colic, acute cholecystitis, acute intestinal obstruction, salpingitis, or ovaritis.

If relapses of appendicitis occur at intervals of a few weeks or months, the condition is denominated chronic or relapsing appendicitis. The frequency of relapses has been estimated at from twenty-three to forty-four per cent. The symptoms of the relapses are similar in all respects to those of the primary attack. In this form of the disease there may be no symptoms in the intervals of the attacks. More commonly, however, the patient complains of a slight but constant sense of discomfort or moderate degree of soreness in the appendicular region. The recurring attacks are usually superinduced by errors in dietetics, digestive disturbances, or fecal accumulation in the cecum.

Regarding the surgical method of treatment of these cases as only a little better than homicide, I will proceed to give the therapeutic method, which has proven universally successful in my limited experience.

In all cases so far as my experience has extended, there was the small, frequent pulse, calling for aconite in the usual small doses. Besides, it has the specific effect of controlling intestinal irritation and soothing a disturbed nervous system.

For the local or diffused tenderness of the abdomen we use specific dioscorea gtt. xxx to LX, to water ℥ iv, in conjunction with the specific aconite gtt. v to vij; dose: teaspoonful every 30 minutes to one hour, as urgency of symptoms above mentioned may demand.

Then specific euphorbia hypericifolia has an affinity for the cecum, controlling irritation of the same, I give it, ten drops to water ℥ iv., teaspoonful every hour in alternation with the first-named prescription. We also have positive testimony from actual experience, that natrum sulphate 3x, also has an affinity for the cecum. So, we add, grs. x to xx to the euphorbia mixture, and alternately with the first-named prescription, as above directed. This constitutes the internal medication, except in those cases in which we have the evidence that the lumen of the intestine is open, when a teaspoonful of sulphate of magnesia two or three times a day in a glass full of hot water facilitates the treatment by dislodging any fecal accumulation and cooling the intestinal tract.

As auxiliaries to the above internal medication, we will, in

the onset of the attack, or at any time when the pain is excruciating, use hot packs of peachtree infusion, containing a tablespoonful of borax to the quart of infusion. These packs are to be renewed every twenty to thirty minutes till the pain is lessened; then every forty to sixty minutes till the patient is relieved sufficiently to be reasonably quiet. At this juncture of the case we should give precedence to antiphlogistine as the application *par excellence,* which should be renewed two or three times a day.

High flushing of the intestinal tract is of prime importance, and should be used assiduously from the very incipiency of the attack. The knee-elbow position to receive the flushing will doubtless give the highest and most cleansing effect from the procedure. After having retained the enema as long as possible, in the knee-elbow position, have the patient to ease down and lie upon the right side, at the same time palpate the abdomen as much as the patient will allow, in order to dislodge any fecal accumulations in the cecum, or sulci of the bowel.

Another very excellent posture for the reception of the flushing is upon the left side, with the knees flexed at about right angles, and as the enema is passing in palpate the abdomen at occasional intervals, for the purpose above indicated.

The character of the enema is determined by the condition of the bowel. If there be a diarrhea, a containing fecal matter, evidencing that the lumen of the intestine is not occluded, then the enema had best be plain warm water, freely used to the amount of two quarts to one gallon. If there be constipation, the enema should consist of two to three quarts of warm water, to which is to be added one teacupful of molasses and one tablespoonful of tablesalt well dissolved.

If there be much foul odor attending the dejections from the bowels, the enema should consist of the above amount of warm water described, to which should be added about four ounces of coal oil, which is soothing, healing and decidedly disinfecting. These enemas may be repeated from one to three or four times in twenty-four hours.

DISCUSSION.

DR. METZLER (of Ky.): With almost every case of appendicitis there is constipation. It has been stated that constipation is the cause of appendicitis. That being the case, we

ought to remove it, and the best way to do that is to give small doses of podophyllum every two or three hours, and follow with salts. If much accumulation in the large bowel, we can flush out with the enemas, but we can't get the water above the ileo-cecal valve and have to use the specific cathartics to relieve that. The essayist did not speak of belladonna, which in my hands works very nicely. In some cases I combine aconite. If the patient is nervous and depressed I give him pulsatilla, but I depend a great deal on the hot applications. I practice in a town where there are a great many negroes, and they like turpentine, and I use equal parts of turpentine and lard and change often enough to keep the place hot, and I have never had any bad results in appendicitis. A great many men in our town, as soon as they are called to a case with a pain in the right ileo-cecal region, operate. According to my belief an operation is only indicated when you have pus, and this will not form within three or four days. After you have pus, operate, and not before.

DR. ENTZ: I would like to speak in regard to the pain referred to in the right ileo-cecal fossa. It has been my impression that we very seldom find the pain there in the beginning of the disease. It is my impression that I always found the pain in the pit of the stomach, for the simple reason that the longitudinal fibres will not expand with the circular fibres of the large intestine. With regard to the internal treatment, we have nausea and vomiting. Put something else in the stomach, and you will have more. Clean out the stomach and let the patient rest, because the internal medication increases the peristaltic action. I do not believe constipation has anything to do with appendicitis. In regard to the treatment, if it is a recurrent attack, and you have it, I venture to say you will have it cut out, the same as I did.

DR. WIGHTMAN: Regarding the etiology of appendicitis, there are more cases than in former years. There are more cases now than 20, 30, 40, 50, or 100 years ago. As years go by the human appendix is growing smaller and smaller. We know that it is a useless organ and that nature is making an attempt to do away with it. It is easy for a foreign substance to get in, and difficult for it to get out. I have noted that almost all inflamed appendices have a peculiar position. It should point towards the spine, upwards and backwards. In this position it is difficult for anything to get in, and if it does get in, it is easy to get out. But

in inflammation it hangs down. It has not now much muscular fibre and it is an easy matter for a foreign substance to get in, and difficult to get out. But it is not the foreign matter, but the fact that the secretion becomes abnormal, and furnishes suitable soil for the multiplication of microbes. Nature is trying to do away with the appendix. Every three or four months there is an attack, and after a patient has had four or five attacks, he has no longer an appendix and has nothing but a band of fibrous tissue. That is the way nature is trying to do away with the organ.

DR. HITE: I neglected to say that in appendicitis you should be careful about giving sweet milk. Give rice gruel and barley water and chicken broth. If you give sweet milk you will have trouble.

DR. ROBERTSON: In the treatment of appendicitis all food should be abstained from. The patient should have nothing but water, per mouth. Hot applications should be made until the inflammation either subsides or is localized in the form of an abscess. If the abscess forms, it should be opened right over the anterior superior spine, keeping external to the peritoneum. If the inflammation subsides without an abscess being formed, and the patient recovers, he should be operated on within two weeks after all inflammation has subsided and the appendix removed. This for the purpose of preventing a new attack. During the past seven days I have treated surgically seven cases of appendicitis, operating upon each one, and in nearly every instance the operation consisted in introducing a rubber tube and draining the abscess.

ADENITIS.

J. V. STEVENS, M. D., JEFFERSON, WISCONSIN.

The consensus of authority respecting the etiology of inflammations of the glands, and especially the lymphatic glands of the neck, groin and axillæ, to which this name is considered more generally applicable, seems to be that in the majority of cases it is due to tubercular infection. Some eminent writers and observers are quoted as saying and believing that there are many cases in which hypertrophied and inflamed glands are caused by overwork on their part in attempting to remove all the debris remaining in the circulation after an attack of acute disease, and especially those of a zymotic character.

Those supporting the tuberular pathology account for the fact that most of the cases recover eventually, by claiming that it is because the tuberculosis is local only and that the infection rarely if ever spreads beyond the particular gland affected, whether an operation for the removal of the gland is performed or it is left to itself and to the suppuration which usually ensues in neglected cases. While undoubted proof can be adduced that in some cases of adenitis there is a pronounced tubercular infection and the bacilli are found in the pus and have been successfully used to produce the disease in animals by inoculation, I am inclined to believe that many cases are seen of the other class, viz., those in which the glands are simply filled with waste material in excess of their ability to eliminate. Even the presence of bacilli can hardly be considered conclusive, I think, and I hesitate to believe such a complete isolation possible, that when one or more glands, so intimately connected with the circulation as the lymphatics are, are affected by their destructive presence, the remainder of the system is entirely free from infection.

However, it is a very suggestive field for investigation, that should improve our very indefinite knowledge as to causation and nosology, that many of us have heard taught, when these conditions were called "scrofula" and when the people had not entirely broken away from the superstition that called it King's evil and almost believed in the efficacy of the "touch" which would not be tolerated now, even if practiced under the technical name for it that I found in an old dictionary, viz., "adenocheirapsology."

An erudite teacher of medicine once made a statement, in my hearing, that "scrofula" was the result of syphilis that had been "strained out" through several generations. The term "scrofula" has practically disappeared from medical nomenclature, but it served preceding generations of medical men well, as a name for the strumous diathesis we are discussing. Pathology here, as elsewhere, is important to enable us to establish a correct diagnosis and prognosis and prescribe a rational treatment for any particular case.

My own experience has proved to my satisfaction that only a small proportion of cases were of the tubercular variety and that most of those that were, resulted fatally in spite of operative interference and were really only a special manifestation of coexistent tubercular condition of some other portions of the sys-

tem. Dr. Louis Starr in his work on Pediatrics says that "all forms of scarlet fever are attended with inflammation of the lymphatic glands of the neck" and "They betoken necrotic processes taking place where the poisonous debris clogs and inflames the glands." He also says, as do other careful observers, that "It must not be supposed that every case of general moderate enlargement of the superficial lymph-glands in children is due either to tuberculosis, syphilis or Hodgkins disease, and again, "Tuberculous adenitis of the glands of the neck, so extremely common, which fortunately often remains a local and curable affection, was regarded as one of the most typical and characteristic manifestations of scrofula."

The important groups of lymph glands within the thorax—the sternal lying along the course of the internal mammary vessels; the intercostal along the heads of the ribs; the cardiac in the interpleural space about the arch of the aorta and the tracheal glands on either side of the windpipe and the bronchial which surround the main bronchi and pass deeply into the lung —are often the seat of tubercular infection as well as the glands of the mesentery and omentum and the retro-peritoneal glands which it seems to be clearly established, is in many cases the primary affection. The drainage areas of the lymphatic glands of the neck include the superficial and deep structures of the neck and head. The superficial cervical drains the side of the head, neck, face and external ear. The deep cervical the mouth, tonsils, palate, pharynx and larynx. The submaxillary and suprahyoid the front of the mouth and tongue, the chin and the lower lips. It is these more particularly that I believe to be subject to an enlargement due to other than specific causes, excepting, of course, the infection affecting the parotid gland.

The diagnosis of the disease in superficial glands is easily accomplished by inspection. As the treatment that I shall suggest is applicable to an enlargement of any of the glands, I wish to call your attention to other superficial glands that may be affected, by sustaining injuries, etc., such particularly as the mammary glands and the testicles and non-specific enlargements of the axillary and the inguinal glands. That the same treatment seems to be equally effective whether the inflammation of the glands is due to idiopathic causes, or to having received external violence, except in cases which have every appearance of being caused by tubercular or other infection, fortifies me in my

belief that there are many cases of non-specific adenitis, and in fact, that a large majority are of that variety.

Duhamel does not consider that adenitis is a manifestation of an already generalized tuberculosis, but that the bacillus (everywhere present) penetrates through some solution of continuity of the mucous membranes or of the skin to the lymphatic glands. Witherstine, commenting on this, draws a marked distinction between the cases where there is some suspicion of congenital heredity and where there is none. J. Solis Cohen says there has developed a belief that tuberculosis of the lymphatic glands of the neck must be attributed to the entrance of the bacilli through the oral or pharyngeal mucous membranes. Some experimental attempts to induce tuberculosis of these glands by the introduction of bacilli into the tonsils have failed.

However, Kruckmann, in conducting post mortem examinations in twenty-five cases of tuberculosis at the Pathological Institute in Rostock was able to demonstrate tuberculosis of the tonsils in every one of the twelve cases in which the lymphatic glands of the neck were affected. In two of the cases there seemed to be no question that the lesion in the tonsils was the primary one. The importance of the tonsils as a point of entrance for the bacilli he believes to be clearly demonstrated, and he strongly advises the extirpation of fissured and hypertrophied tonsils to escape this danger. Dieulafoy believes that a considerable proportion of cases of enlargement of the tonsils and adenoid vegetations of the pharynx in young children are tuberculous. From sixty-one cases of tonsillotomy in the Paris hospital he inoculated guinea pigs, and in eight of these cases the animals became tuberculous. In thirty-five cases of removal of adenoid vegetations, inoculations were successful in seven. Eustace Smith arrived at nearly the same conclusions independently, but believes that the infection is derived from the pharynx without any tubercular lesion of the parts.

In the treatment of this condition Guermonprez, a notable French authority, uses the crystals of iodine in all pus cavities and has never had iodinism occur from its use. An Italian writer (Isnardi) recommends oil of turpentine mixed with vaseline equal parts and applied to the skin undiluted as an injection into fistulæ or abscesses. Very intense inflammation follows with the temperature rising to 104° Fahr., in some cases, but no severe general symptoms are seen. In four to six days the abscesses

are freely incised and packed with sterile gauze filled with the turpentine ointment. LeDentu, of Paris, advises extirpation in all cases, in which the physical condition of the patient will permit. Dollinger points out the great advantage in making the incision for removal of the glands in parts covered with hair, wherever possible, that, the scars resulting from the operation may be hidden from view by the growth of the hair afterward and mentions the great elasticity of the skin about the nape of the neck, especially in women and children, which permits this to be done. Dreschfield reports two cases of Hodgkin's disease which were rapidly cured by the administration of Fowler's solution in five minim doses three times a day, combined with ten grains of quinine twice daily. The use of the thyroid extract in goitre and in exophthalmic goitre has many advocates, but most of those who have used it extensively add many words of caution to be observed in giving it. Conflicting reports as to the success of thyroidectomy in these diseases are given.

I have a remedy to urge for its specific action in adenitis that has been so uniformly helpful in my use of it that I can excuse myself for occupying so much of your time, if I can induce any of you to use it who have never employed it. I am so so enthusiastic in regard to it that I am reminded of a remark credited to a medical student who quoted one of his teachers who had strongly recommended a remedy for both external and internal use as advising it's use externally, internally and eternally. The remedy is phytolacca decandra and the preparation the fluid extract or a reliable tincture of equal strength made from the root of the plant. This remedy has been used for many years by dairymen to prevent and to cure inflammation of the udder in cows. Its common names of garget root, poke root or scoke root being very familiar to those who live or have lived where this plant is indigenous, as I did when a boy. The young shoots from this perennial plant are often gathered for "greens" and the ripe berries, which are filled with a scarlet-colored juice, afford much entertainment to the children who live where it grows, as they use it for staining their faces and articles that they desire to color.

I employ phytolacca internally in the combination known as Syrup Trif. Co., of which it is an ingredient, or alone in one-drop doses (for adults) three or four times a day. I have had quite an extended use of this remedy for the cure of exophthalmic

goitre and ordinary bronchocele, using it to the entire exclusion of iodine preparations and with better success than I formerly obtained with their use and to the satisfaction of my patients, who thus avoid the staining and the destruction of the skin, commonly occurring where iodine is used.

More than twelve years ago I prescribed it for Mrs. L., a widow, age 35, who had a very pronounced exophthalmic goitre of over nine years' standing. She was entirely cured in nine months by using the tincture of phytolacca applied externally in full strength two to four times a day, and one drop of this remedy combined with one drop of the tincture of aconite and two drops of Cactus G., taken internally three times a day. In 1902 I had an almost exactly similar case in a single woman about 25 years old, whose mother had an enormously large goitre, with like results. I have treated about forty or fifty cases of enlarged thyroid glands in young people. Where the growth was of recent origin, satisfactory results have been obtained in nearly every case. In adenitis of the cervical glands in children I have three cases under treatment at the present time which seem to be the sequalæ of follicular tonsillitis. Two of them are recovering and the other had nearly recovered when, as the result of a trip away from home, and some exposure, a relapse and suppuration rapidly followed. This case requiring the first incision that I have found it necessary to make for this purpose for a number of years.

The remedy should be used very persistently and no one need be discouraged as long as the gland remains firm to the touch, if it may be several weeks in disappearing. Those of us who dispense our remedies ourselves are in a position to more easily judge of the relative value of different preparations of the different remedies that we employ, than those who write prescriptions. I have noted a great variation in this respect and would urge that a reliable preparation of the drug be secured. I wish to recommend Phytolacca D. in the treatment of all glandular inflammations and enlargements such as parotitis, mastitis, orchitis, ovaritis, etc. In mastitis and orchitis especially I have found it very serviceable used externally and internally. I sometimes use it externally mixed with glycerine in equal parts.

ANASARCA.

C. P. HOCKETT, M. D., KOUTS, INDIANA.

On Oct. 13, 1902, I was called by Mrs. Fred C., a German woman, 49 years old, of medium height and of about 140 pounds weight, with the following history: Good health most the time, but with periodic sick headaches which lasted from one to three days and generally subsided after free vomiting and purging. The headaches would return at irregular periods, and had lasted twenty-two years.

In June, 1902, after working hard in her garden, she became sick, called the nearest physician, an Allopath who, after an examination said she had a tumor growing in her abdomen near the right ovary.

After she had been under his care for four months I was called to take the case and found the following condition: The abdomen was distended and about half filled with fluid. She was unable to lie down, on account of irregular heart action, with regurgitation. The feet and limbs were swelled. The urine was scanty and high colored. The bowels moved only as cathartics were used.

After treating with the usual specific remedies: cactus, digitalis, apocynum, nux and apis, with only partial success, Dr. A. W. Vincent, of Valparaiso, was called in counsel.

Tapping was resorted to three times in so many weeks. The family now desired Dr. C., a Homœopath, in counsel. His diagnosis was a tumor, the same as our allopathic friend, but said to give the apocynum in capsules every four hours, and push it to the limit of toleration, or dropsy is removed. We now took her to Bennett Hospital, Chicago, where she remained about three weeks under Dr. Farnum's care. After the dropsy was removed and no tumor found she returned home only to again fill up in a short time.

On April 14, 1903, she died, but had made request for a post mortem examination to be made.

Dr. E. A. Edmonds assisted at the post mortem. We found no tumor. The kidneys were about normal in appearance, but the heart was dilated and the walls thin.

The liver was near three times its usual size and the right lobe extended below the umbilicus, with a thick, heavy margin which had been mistaken for a tumor. The gall cyst was filled

with a caseous substance and the ductus communis was obliterated at one point, but distended at another by gall stones. The substance of the liver had a fatty appearance.

W. L. T., an American, fifty-two years old, had hip disease when a boy. Left leg smaller and two inches shorter than right. Changed occupation three years ago, from farmer to grocer. For six months the circulation was irregular and the face and limbs were swelled. In March, 1903, he was confined to his bed. A Regular was called in to treat him and had the case until July, when the writer was called upon. The face, limbs and abdomen were swelled and soreness in the stomach and liver was very marked. There was great distress after taking food of any kind. There was inability to sleep, he must have some attendant near all the time to rub or fan him. The circulation was very irregular. Specific passiflora, the bromides with cypripedium, gelsemium, morphine, were each used with only partial success in allaying the nervousness and insomnia. Digitalis, apocynum, apis, anasarca tablets, etc., were used for the dropsy, and cathartics kept bowels moving.

Dr. A. W. Vincent, then Dr. Finley Ellingwood was called in counsel. Hair-cap moss, hyoscyamus, elaterium, crataegus and other remedies were used with partial success, but still that nervous dread and inability to sleep, and distress after taking food, were present; also the distended abdomen, though some of the fluid was gone. At last we combined specific cactus, digitalis, nux, scutellaria, apocynum, in proportions to give the required dose of each, and gave twelve drops of the mixture in a capsule every three hours, gradually increasing the size of the dose; and presto! rest came, distress left, and the dropsy was carried away.

The remedies were changed until it was evident the scutellaria held the keynote, controlling nervousness until the other remedies could build the system and eliminate the effusions.

The patient feels better than for years and has now a fine garden, all spaded and tended by hand, and is a candidate for township trustee.

THE SPINAL CORD AND SOME OF ITS DISEASES, AND THEIR TREATMENT.

C. C. EDSON, M. D., VEEDERSBURG, INDIANA.

The principal diseases attributed to the spinal cord are due to one of two causes, viz., congestion or inflammation. These

may be induced by injury, cold or a depraved nerve system; but whatever the cause, the treatment is virtually the same. Some of these, as meningitis, frequently, in fact usually, comes on without warning. The first notice we have is a spasm peculiar to itself, and I believe simulating no other spasm. The head is drawn backward, pupils dilated and the eyes rolled upward; there is constant twitching of certain muscles of the face, and in severe cases frothing at the mouth. A condition peculiar to this disease only, if acute, I believe is, that some limb—a hand or foot—is in constant motion. Examine carefully, by pressure along down the spine and almost invariably you will find soreness and tenderness somewhere between the spinous processes, denoting the seat of the disease.

Failing to find this, the probabilities are that the disease is cerebral. Although as regards the treatment the particular location is of small import. A much more frequent form of the disease may be called spinal irritation, for the want of a better name; and here the field is broad and the victims many. In fact I believe that scarcely one-tenth of the conditions traceable to a diseased condition of the spinal cord are correctly diagnosed, and even if so, the remedies we have at our command with a direct affinity to the spinal cord are so few that but a small number of the sufferers are ever relieved.

These patients are usually anemic, though sometimes extreme plethora may be present. Usually there is pain at the base of the brain, ofttimes extending up and over to the frontals. The patient has a tendency to throw the head backward for relief, and not infrequently there is a drawing backward of the head; the pupils of the eyes are usually enlarged. Tracing down the spine, tenderness will be discovered. This may be circumscribed, or general, but always between the processes of the spine; pain may be complained of almost anywhere in the body, but is usually reflex, and may be traced to the spine. Again, there is a peculiar nerve condition that may not be traceable to any particular point of the spine. The patient complains of being tired, with backache, weariness and irritableness. The conditions traceable to a spinal irritation are legion, and many of them hard to describe.

Treatment.—Nearly all of these conditions may be met, with but a single remedy—physostigma (calabar bean). In rare cases, especially in infants, particularly if the trouble is cerebral, there is a state of depression. The pulse is very feeble, breathing shal-

low, with a general collapse imminent. This condition should be promptly met with spirits ammonia aromatic, in doses of a fraction of a drop for infants, to ten or fifteen drops for the adult, and frequently repeated, say every ten to fifteen minutes, until results are obtained, then at longer intervals, as required.

If the case is spinal, and by pressure the tender point can be ascertained, apply a poultice made as follows: oil capsicum, 30 drops; vinegar, one ounce; flour qs. to form a paste. Apply generously along the spine, and next to the skin, and let it remain for four hours. This is a very powerful counter-irritant, but will not blister. If the patient is in a condition of unconciousness so profound, or for other cause, you are unable to find the tender point; apply a "blanket remonstrance," i. e., put the poultice the whole length of the spine and about two inches in width. This application is only for acute, or urgent cases. The internal remedy is the physostigma tincture. It matters not whether the case is spinal, cerebral or cerebro-spinal, it will cure. I have used this remedy successfully for twenty-five years, and know whereof I speak. The dose for a very young infant is about one-fourth of a drop of the tincture in a little warm water every thirty to sixty minutes. To the adult I usually administer about two drops to the teaspoonful of water, and give it every fifteen minutes, until results are marked. After the spasms have been brought under perfect control, give the smaller doses every two or three hours for three or four days, and the recovery will be complete.

In that other and larger class of cases which we designate as spinal irritation, the adult dose is from one to two drops—usually one—every half hour until a marked improvement is noticed, usually from one to four days; then give every hour for a few days, and finally every two, three or four hours. In many chronic cases the remedy must be continued for three or four weeks, but that you will get results from the use of this drug, that can be obtained from no other, is positive. First, be sure you have a reliable preparation—which is sometimes not easy to obtain—and then push it steadily, energetically and Eclectically, in small doses frequently.

I have obtained my best results from the fluid extract of P. D. & Co.; from this I form my tincture by using 3 dr. of the fluid extract to 17 dr. of pure alcohol. My mode of administering it is at the bedside, tr. physostigma, dr. ss.; aqua, oz. 3 to 4;

mix. Sig.—A teaspoonful every fifteen to sixty minutes. In chronic cases I saturate Luyties' No. 6 Perfection disks with the tincture, each one of which will absorb one drop; of these I fill a four-dram vial, and label it thus: "Let one dissolve on the tongue and swallow every half-hour; or placing the frequency at longer intervals, as the case may seem to require. Physostigma acts in these cases as a sedative, stimulant and powerful tonic to the nerve system.

MEDICAL AND SURGICAL TREATMENT OF TETANUS.

E. H. STEVENSON, M. D., FORT SMITH, ARKANSAS.

That tetanus is due to a specific germ introduced into the human system through traumatic media, there is no longer a reasonable doubt. Its presence in soil, where equine excreta exists, is a demonstrated fact. Hence, wounds received along streets, in richly-manured gardens, fields, or about horse lots and stables, or through soles of shoes which have trodden such soil, should be suspected and treated at once.

First, the wounded part or member should be cleansed with soap, water and brush, followed by strong boracic acid or bichloride solution. Secondly, the wound, if punctured, should be freely incised, the knife being carried well down to the bottom of the wound, guided by a groove director or small probe previously introduced. Then a swab saturated with pure carbolic acid or saturated solution of potassium permanganate should be forcibly dragged through the incision or laceration. If carbolic acid is used, a similar mop saturated with alcohol or acetic acid should be immediately passed over every part touched by the acid, and repeated until all bleaching effect of the acid has been overcome.

If permanganate is used, the alcohol, after treatment, is unnecessary. In cases where the wound has healed and tetanus supervenes, the old scar should be ripped open, the cicatrized tissues freely curetted, and then subjected to the carbolic acid or permanganate treatment.

The writer once removed a piece of shoe sole one-eighth of an inch square, by incising such a scar in a case of well-developed tetanus. The nail wound had healed perfectly and the surface indications pointed to a healthy scar. After the disease

manifests itself, despite your antiseptic and prophylactic measures, you will be eligible to the medal of a hero and philanthropist, if by your skill a successful termination of the case is obtained and death averted. Such has been the result of the hypodermic treatment with carbolic acid in the last two cases coming under my care. This is known as the Baccelli method, and commended by Dr. H. C. Wood, and consists of the hypodermic use of a two per cent solution of carbolic acid repeated every two or three hours. In cases of moderate severity, the dose should be twenty minims every three hours, so that at least three grains are administered in the first twenty-four hours—afterwards rapidly increasing the dose until the patient receives from six to nine grains in twenty-four hours. This should be maintained until the disease is under control, then gradually decreased as convalescence is established and progresses. Tetanus patients seems to be remarkably tolerant of the drug. The success obtained by this method of treatment is almost incredible, and promises to work as great a revolution in the prognosis of tetanus, as antitoxin has in diphtheria.

"Ascoli has made a careful analysis of the results obtained by the use of carbolic acid, of Behring's antitoxin serum, and of Tozzonis' serum, other antitoxins being excluded in order to have a more uniform basis of comparison. The summarized tables tend indutiably to show that carbolic acid far surpasses the serum treatment in life-saving power. Besides, Ascoli claims for carbolic acid that it causes no secondary symptoms, which can hardly be said of the antitoxins, and that it is cheap and readily obtained."

In conclusion my own and collated experience proves to me:

"1st. Carbolic acid gives better results in tetanus than does the antitoxin treatment.

"2nd. It acts by antagonizing the toxin and by quieting the nervous system.

"3rd. It should always be given subcutaneously and in large enough doses, cases of tetanus being remarkably tolerant towards it."

"4th. Other methods of treatment should be continued, of which the discoverer lays special stress on the local disinfection of the wound."

The two per cent carbolic acid solution for hypodermic use should be prepared from the pure crystals, one grain to each fifty

minims of sterile water. For an adult, the treatment is begun with twenty minim injections subcutaneously, every three hours for the first twenty-four hours. The second day thirty minims at each injection; the third, forty; increasing ten to fifteen minims daily. If called late and the case is severe, the dose should be increased ten minims in each ten to fifteen hours, until the maximum dose is reached. Of course, the use of chloral, hyoscyamine, passiflora, gelsemium and morphine are to be used at the discretion of the physician, to control the nervous disturbance until all germs are destroyed and their effect passed.

My first case under this treatment was Mr. W. S., a young carpenter who was working with his father, a prominent contractor. After harnessing the horse he rode with his father to a large building, which they had under construction. While engaged in work, a large nail, after passing through the sole of his shoe, entered the foot, inflicting a rather painful wound. Nothing but a domestic dressing was applied and no professional attention called until the fourteenth day, when he was seized with tetanic spasms while at work. After an emergent dose of morphine at the hands of a convenient physician, I was summoned to his residence and found a well-defined case of tetanus. The wound, which had healed perfectly, was freely and deeply incised, curetted and a piece of shoe sole ⅛-inch square, removed. After being thoroughly aseptisized, the wound was dressed with iodoform gauze and cotton, then secured by roller bandage. The treatment with anodynes and narcotics was being adhered to with doubtful success when my attention was called to the carbolic acid treatment, as previously outlined, and upon which he was immediately placed.

Within three days he was taking the maximum dose, which was continued three days, then gradually reduced as the case improved, and discontinued only when convalescence was complete. Chloral and morphia were administered when the nervous disturbance was too great. The room was kept dark and absolute quiet enforced, and a generous diet of milk, eggs and broiled steak ordered.

In August, 1902, I was called in consultation with Dr. J. B. Ellis, who was treating a boy nine or ten years of age, who had stepped on a live wire early one morning after a storm. The wire lay in the muddy street—the lad receiving a severe burn about the toes of his bare foot. One toe had been amputated. Tetanus

had developed and the convulsions, which had existed several days, were constantly becoming more severe. The subcutaneous use of the carbolic acid, employed as in my former case, was advised in a proportionately smaller dose, as this boy was much younger than the young man in the first case. There was immediate improvement and within one week the child was practically well. Morphia was only resorted to a short time after the acid was begun.

It will be noticed in the preceding cases that each was exposed to soil fertile with tetanus germs. The young man being wounded through the shoe sole, which had just before trodden the barn-yard, while its wearer harnessed and hitched his father's buggy horse. The boy was wounded in the street, where the soil is mixed with equine excrement.

The extreme danger to patients in all punctured and lacerated wounds of the extremities, should be taught the laity in each physician's practice, and the importance of immediate and thoroughly antiseptic treatment emphasized.

THERAPEUTIC NOTES.

H. A. PETERMAN, M. D., MARSHALL, MICHIGAN.

The first condition I will mention is ossification of the valves of the heart and senile gangrene. The two are closely associated. In the first the limey deposit is on the valves of the heart; in the latter, in the capillaries and small arteries of the extremities or skin.

The same remedy cures both forms of the disease. The remedy is a strong mineral acid. The one that I have selected and used is dilute aromatic sulphuric acid, known as elixir of vitriol. I dilute it and add some bitter solution. I give it strong and often, but not to irritate the stomach.

Snake Bites.—The true and perfect remedy is aqua ammonia. Lance freely where the fangs entered and as deep as they penetrate. Pour the hartshorn in freely and often to destroy the poison that has not been absorbed. Mix a dram of the ammonia in a glass of water and give a few teaspoonfuls at a time, to destroy the poison circulating in the blood. One ounce of good ammonia is worth more than a barrel of whiskey. I

have used it for the bites of both rattlers and copperheads. There is no difference that I could see in the poison or the quick relief given.

Tuberculosis.—No disease that affects man yields with more grace, to true scientific treatment, than tuberculosis, without regard to its location outside of the brain. Within the brain it is beyond reach. The treatment consists in passing a fine, tense current of galvanism through the tubercular mass, daily, for from ten to thirty minutes. The current of such strength as will not make it a punishment, to dissolve (absorb) the tubercles and kill at least a part of the bacilli. The use of the battery to be followed by free inhalations of dilute oxygen to invigorate the system. And the daily administration of germicides; of which corrosive sublimate, hepar sulphur and spirits of turpentine, I place at the head and I give them in succession one each day and continue it until the sufferer is well. This treatment does not cure, in the last stage of the disease.

It would be foolish to think of curing consumption when the patient is within three or four months of death. Should any doctor wish to know how to cure it, if he will come to me with two or three cases in the early stage of the disease I will cure them for him and teach him how to do it.

ZYMOTIC FEVERS.

R. T. RUDD, M. D., FULTON, KENTUCKY.

Zymotic fevers are those caused by some morbific principle, acting as a ferment. They present themselves in an endemic, epidemic, contagious or sporadic form. My aim in this paper is to try and differentiate the symptoms so that we may distinguish the case at sight, as a great deal depends upon an early diagnosis.

We will first notice diphtheria. In this disorder the forming stage is similar to other zymotic fevers. There is a general malaise, a stupid, indifferent, restless condition exists for three or four days, a chill follows, with high fever; then we notice redness in the throat, painful deglutition and dryness. The mucous membranes of the tonsils and pharnyx is red and dark. Sometimes, because of the mildness of the disease, it is hard to diagnose these cases, before the third or fourth day.

The typical diphtheritic membrane of a marked case is perceptible from the second to the fourth day, following a chill. The membrane is generally recognized as a mucus patch or whitish opaline spot on the soft palate, then on the tonsils, and sometimes it covers the pharnyx. At first the membrane is quite transparent, then new plastic layers are exuded and become opaque and change to an ashen gray color. In aggravated cases, the entire air passages are covered, and deglutition is almost impossible. The submaxillary glands are very much swollen. The fever may or may not be high.

When we have a moist, sloughing exudate, it is not diphtheria, but follicular or ulcerative tonsillitis. There is no trouble in moving the jaws in this, as there is in scarlatina. We have the metallic cough, the same as in membranous croup.

Scarlatina is more easily diagnosed than diphtheria, because of the marked symptoms. It is a very contagious eruptive disease characterized by a red rash, beginning about the second day, and continuing from the third to the seventh and sometimes to the tenth day. Also the mucous membranes of the tonsils, tongue, mouth and pharynx are all involved. We have from the beginning the peculiar high fever for from three to six days.

This disease is divided into two forms, the mild and the grave form. It is propagated by two influences, the contagious and the epidemic.

The eruption generally appears on the face and neck and begins as dark, red points, then dotted upon a rose-colored surface, forming irregular patches which disappear upon pressure. A letter may be written on the surface and easily read. In this fact no other disease appears like this. We may easily define this as scarlet fever. As a rule the surface is smooth, but there may be pimples or pustules. We find respiration about the same as in other troubles. Auscultation reveals nothing unless the disorder be complicated with other troubles.

Measles or Rubeola.—Measles is an epidemic, contagious, exanthematous disease, characterized by catarrhal conditions. The period of invasion is from six to twenty days. The eruption begins about the fourth day with the crimson rash, in the form of dots, like flea bites, slightly raised. They coalesce in circles. This disease ends about the twelfth day with desquamation.

The prodromic symptoms are: aching in the back, catarrh,

sneezing, dry, hard cough. A chill follows, with high fever. The conjunctivæ are highly inflamed.

Photophobia is a prominent symptom. The eruption, or second stage, generally appears about the first day, about the fourth day it is noticed on the chin, the cheek or upon the fauces.

Variola or Small Pox.—This is an endemic and contagious disease, characterized by an initial fever which continues from three to four days, followed by an eruption which is first papular. then vesicular, and lastly pustular. The eruption attains maturity in from six to nine days, and desquamation ends from the fifteenth to the twenty-fifth day.

I will briefly describe the leading symptoms of each of the three stages of this disease. The beginning fever, with children, is usually ushered in with active pains in the bones and chilliness, with nausea, vomiting and an extreme headache. One characteristic symptom of this complaint is pain in the loins, which commences from the first to the second day. It resembles colicky pain in the abdomen, which may also occur.

The specific eruption begins about the third day from the beginning of the fever. Oftentimes before the specific eruption we have a rash, which has often been taken for roseola and looks like measles. The eruption soon takes the form of red specks which soon form papules. They disappear on pressure. They are hard and shot-like. The eruption begins first on the chin, mouth and neck. Then on the trunk, limbs and hands. The papules are converted into vesicles in about two days. Then from one to two days a clear, transparent blister rises upon each vesicle, and about two or three days later we notice the pustular formation. This completes the second stage.

The third stage is the stage of desquamation or drying of pustules. It commences between the sixth and ninth day of the eruption, and continues until the fifteenth day. The entire desquamation being complete about the twentieth day from the beginning of the eruption. It is difficult to diagnose this disease until the specific eruption is manifested.

Varicella is an eruptive, contagious disease, characterized by transparent vesicles, which are built upon small red elevations. The initial stage is very mild and lasts about two days. There is a light fever. The entire eruption only lasts about eight days. It appears in the form of papular spots of a deep red color in an

irregular circular shape, and is first noticed on the front or back of the trunk, then on the face and extremities. On the second day the papules are converted into vesicles which are small, or large and globulated. These vesicles contain transparent, straw-colored fluid. About the fourth day desquamation commences and continues to the sixth or seventh day. Only a small white spot remains to show where a vesicle has been. This is sometimes taken for variola. It is a much milder disease, however.

PREDESTINATION IN MEDICINE.

HERBERT E. TRUAX, M. D., TALLAPOOSA, GEORGIA.

Anyone who is a careful student of all that is contained within the Cosmos and the various phenomena connected therewith, must perceive that it was the design of the great and benevolent Adaptor to lay the foundation principles of Eclecticism by stamping them upon everything in Nature, so that not only primitive man, but the animal creation could in part understand them.

It is a waste of time for any one to attempt to prove that our God-predestined science was or is the work of any one man. It has taken all the countless ages and the brains of thousands of more or less intelligent men and women to bring it up to its present standard and to demonstrate the truth of the principles of Eclecticism.

In the animal creation we find them selecting, by intuitive knowledge, the medicinal plants that experience has taught them will relieve pain or cure their ailments.

Back in the primitive ages, when barbarous tribes and fraternities of men inhabited the earth, they also possessed knowledge of the various remedial agents, their indications, and the symptoms these agents would relieve.

This empirical knowledge of drugs and drug action preceded all knowledge of the fundamental sciences and it is significant that even today this primitive method of prescribing is one of the basic foundation principles of our system of practice, and has proved its truth over and over again, viz.: The power of a certain drug to relieve or cure certain symptoms.

As primitive man was but a child of Nature and a part of

her, it was only natural that he should understand some of the secrets that she is constantly endeavoring to reveal to her children and our science today is but the accumulated revelations and provings of Nature's products and the actions of natural laws.

And this is why we can pronounce it a natural science, the beginning of which dates back to that unknown period when the Adaptor first gave to the atoms in space the laws of attraction, cohesion and repulsion and set these laws into action, the result of which was the formation of a Cosmos. with its various elements.

Every chemical action that has taken place, from the time when our globe was but a molten mass whirling in space, down through those which formed its crust and which continued until plant-life developed on the globe, are but the predestined changes that point toward and will culminate in a perfect and scientific system of medication.

If we come up through the various strata of the earth, we but pass through the formed elements and those which are forming, and then were we to climb to the highest mountain peak, we would find them there—in the snow itself and the foundatain stones beneath it. And again dissolved in Nature's pure menstruum we find them trickling down the mountain-side from the snowy, ice-capped peaks above. Springing from the mountain-sides and watered by the rippling streams we find the sturdy plants that contain within them the elements of Nature's chemistry.

As we pass down the mountain-side we find the verdure of Nature made more possible by the precipitations and combinations in varying depth of these same elements, giving us still more varieties of medicinal plants growing and thriving, and all owing to these changes in Nature's chemistry.

Down in the fertile valleys, as well as on the vast plateaus, we view her ever-changing work and we find it beautiful to gaze upon and pleasing to the senses of both man and beast.

And through it all we see the onward steps of that beneficent Power that ever seeks to bless His adaptation. In these vast fields of successive vegetative life and growth, in the mold covering the earth and in the depths beneath, can be found every chemical combination necessary to relieve the abnormal life conditions.

And we of today cannot boast that only in our age alone were these things understood. If we turn to the Apocrypha we find, in Chapter XXXVII an almost perfect description of the Eclectic physician of today. The ancient philosopher had evidently considered the subject carefully and has written as one would write concerning something that had been demonstrated:

1. Honor a physician with the honor due unto him for the uses ye may have of him, for the Lord hath created him.

2. For of the Most High cometh healing, and he shall receive honor of the king.

3. The skill of the physician shall lift up his head, and in the sight of great men shall he be in admiration.

4. The Lord hath created medicines out of the earth and he that is wise will not abhor them.

5. Was not the water made sweet with wood, that the virtue thereof might be known?

6. And he hath given men skill that he might be honored in his marvelous works.

7. With such doth he heal men and take away their pains.

8. Of such doth the apothecary make a confection, and of his works there is no end; and from him there is peace over all the earth. * * *

12. Then give place to the physician for the Lord hath created him; let him not go from thee, for thou hast need of him.

13. There is a time when, in their hands, there is good success.

14. For they shall also pray unto the Lord, that he would prosper that which they give for ease and remedy to prolong life.

The medicines as "created out of the earth" (verse 4) but represent the highest perfection of natural chemistry, and the nearer we use them in their natural form the more perfectly we find them adapted to Nature's creatures, and used in this way we have but little to fear from the poisonous and vicious actions of their alkaloids.

This is why the various manufacturers are constantly striving to give to our profession the remedial agents in as nearly Nature's form and combination as possible. And from those physicians who use the drugs thus prepared, do we receive the most glowing accounts of the successful alleviation of deranged

life conditions. This, then, is the first principle of Eclecticism and constitutes the use of any and all remedial agents and means known or to be known.

Down through all the years of human existence the medical men have ever striven to produce medicines of standard and uniform strength and various rules and formulæ have been originated and handed down to posterity until today we have our King's Dispensatory and United States Dispensatory, with the various pharmacopeia and therapeutic works, all teeming with knowledge and the provings of the drugs and elements from almost every portion of the globe and its atmosphere.

And this leads us to the second proposition in Eclectic medication and that is: The use of that preparation which has proved itself to be of standard, uniform and unvarying strength.

And as it was in ancient time as written in verse 8 of our quotation, the apothecary has indeed become a beneficent power and peace-bestower over all the earth.

The physicians have also been actively engaged in proving the productions of the chemists and pharmacists, and, side by side, have they labored, sparing neither time nor strength to bring about that gladsome time when every acute abnormal life condition will have its specific remedy, and permanent or chronic disease will be unknown.

The result of this persistent work has been the discovery of the action and curative power of the majority of most known medical agents.

And this gives us the third principle in Eclecticism and that is: The determinations of the remedial actions of the drugs are the provings of those drugs.

And that is why mankind has become blessed according to the fourth verse of the quotation: "He that is wise will not abhor them."

But the simple provings of drugs and their remedial action was not enough to satisfy the inquisitive mind of Nature's students. They must also know how and through what channels the medicinal agent acts in the human system. And to this desire do we owe all the wonderful knowledge we now possess of the physical structures and of the elements which compose the human body. This knowledge has enabled the physician to apply still more scientifically his medical agents, and following the analysis of the various structures and secretions of the body, has

developed the rational use of those agents which will restore and resupply those that are found to be lacking in abnormal life-conditions, such as the tissue-remedies.

And thus it is that not only the inner chemistry of Nature has been and is being studied, but also the most vital elements and actions of physical life.

And this gives us the fourth principle of our system which is, "That those characteristic symptoms which are present during any lack in the system or abnormal life conditions, become the specific indication for the administration of the proven and indicated remedial agent or restorative.

It should then be not only a source of constant pride, but an inspiration to us that we live in this epoch of medical achievement and advancement, in which the first four principles of Eclecticism have proven, beyond all reasonable doubt, their certain and positive truth. And that is: the action of a medical agent is shown to have a definite relationship to and controlling influence over the symptoms present in wrong life states.

The fundamental principles give us the reason for and the right to claim as our very own, the term, "Specific Medication." For it is now being taught in our colleges and by our physicians everywhere that the specification of a medical agent is its proven or restorative action upon abnormal life, and the administration or application of such agents to these abnormal life-conditions according to the symptoms resulting from such states, is what we designate "Specific Medication." This, then leads us to a short, reasonable and comprehensive definition of our great system of medical science, which is that. Eclecticism is the practice of Specific Medication according to the symptoms present at the moment of prescribing.

It then becomes the privilege of our physicians to change the remedial agent to correspond with the changes in the symptoms and this is where the observant and conscientious student meets with his greatest reward and success in the practice of medicine. If he is able to determine these changes and to select the indicated remedy, his triumph over the deranged life-condition is assured, if the vital energies of the patient are sufficient to respond to the medical agent or the line of treatment prescribed.

Why should we not be proud of our predestined and beloved science which has not only been a source of constant pride and

stimulation, to us, and the thousands who have preceded us, as it will be to the millions yet to come.

It is a science that is not a dream, for it has now advanced to the position of a positive demonstration even beyond the highest hopes of its early practitioners, and while its principles will eternally remain the same, yet its advancement will go on unimpeded for decades to come.

It is now fostered, promulgated and practiced by the most eminent and thoughtful minds known in medicine, and these minds will but add to its greatness and its certain progress. If it has been devoted to the very best there was in the minds of our forefathers in medicine, and to it, with loving and reverential devotion, let us consecrate the best there is in us. That we may be one of the mites that go to make up the grand total, in the predestined triumph of Eclecticism.

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SCARLET FEVER.

J. PAUL HARVILL, M. D., NASHVILLE, TENNESSEE.

Scarlet fever is an acute infectious disease. It is characterized by a short incubation, short, prodromal stage, erythematous efflorescence, desquamation and long course. If there be a micro-organism that produces this disease it has not been discovered. This is the most important and I think the most dangerous of the exanthemata, because of the many complications and sequelæ. An early diagnosis and prompt treatment are of vital importance, for the safety not only of the patient, but the community in which it occurs.

Etiology.—Scarlet fever is the most irregular of all the exanthemata in its virulence and manifestations which it presents in different individuals. It is usually epidemic, returning to the same locality after several years. Occasionally it is sporadic.

The sporadic case may be the mildest or the most malignant. A malignant case may give rise to a mild case in another individual, and *vice versa*. Unlike measles, scarlet fever spreads very slowly. It very rarely occurs more than once in the same individual. The source and identity of the contagium have not been definitely determined. If there be bacterial infection, it is secondary, usually streptococcus pyogenes.

The epidermic seems to carry and preserve the poisons for months, and the disease is most commonly disseminated by dequamated particles which find lodgment in clothing, carpets, etc. Mail packages may carry the disease for long distances, or it may be conveyed from continent to continent through the baggage

of tourists. Throughout the course of the disease, the discharges from nose and throat may be a source of infection.

Scarlet fever may occur at all ages, but is rare during first year. Adult females seem to be more susceptible than adult males. I have never had a case in adult male, but quite a number in females. It is usually mild in adult life.

Pathology.—The organs principally affected in scarlet fever are the skin and throat, though the usual complications are from the ear and cervical glands. The most common sequelæ is nephritis, from which cardiac disease may arise. Pearce says: "The internal organs show an infiltration with plasma cells, and this is especially noticeable in the kidney in the acute interstitial form of nephritis. A proliferation of cells is found in the follicles of the lymph nodes, and these cells are also often found infiltrating the coats of the veins, seeming in many places only to penetrate the endothelium and forming plugs in the smaller vessels."

Hyperplasia of the lymph nodes is a constant and marked characteristic. As a rule the spleen is enlarged and shows marked follicular hyperplasia. The kidney presents the characteristics of Bright's disease. There is congestion, with some extravisation.

In scarlet fever, the mucous membrane of the throat is rendered peculiarly vulnerable to the invasion of pathogenic conditions, whether caused by germs, or otherwise. When the morbid condition in the throat is represented by a pseudo-membrane, it will be found that in the great majority of cases the process is due to streptococci, but it is often complicated by a diphtheritic membrane. A destructive acute inflammation of the middle ear often results, causing a long-continued suppurative process, with resulting adhesions and necrosis.

There are various forms of nephritis that may follow scarlet fever, the pathology of which we will not attempt to give now. During the prodromal stage the urine is somewhat lessened in amount, but returns to normal during the stage of efflorescence and increases during desquamation, amounting at times to a polyuria, but gradually returns to normal at the end of this stage. During efflorescence, especially if the temperature continues very high, a small amount of albumen may appear in the urine, only to disappear as the temperature declines.

Diagnosis.—The diagnosis of the benign or typical form of scarlet fever is not difficult. In fact, it is rarely that a case is

presented to the physician that is not readily diagnosed. The incubation, compared to other exanthemata, is very short. The prodromal stage is shorter than that of variola and measles and longer than that of varicella.

The general hyperæmia of the mucous membrane, and the characteristic sore throat, accompanied usually by vomiting and other severe constitutional symptoms, make it very easy to distinguish this disease from the other exanthemata.

The punctate erythematous appearance of the skin, with the efflorescence beginning on the neck and chest and spreading upward and downward, very clearly distinguishes this from other diseases of this group. It is said that the efflorescence following the use of antitoxin is difficult to distinguish from that of scarlet fever, though I have never observed this condition. The lamellar desquamation is very characteristic of this disease, though in rare cases other exanthemata present this symptom. McCullum says: "One of the earliest manifestations of the desquamation is a white seam around the base of the nails." The strawberry tongue is said to be characteristic of this disease, though I have seen this tongue in septic measles.

Prognosis.—In forecasting the final result in this disease, many things may be taken into consideration; the character of the epidemic, the sequelæ, the age of the patient, the general surroundings, and the proper nursing. The mild, uncomplicated case should always recover. I have lost only three per cent of all my cases. These cases were malignant, with nephritic and throat complications. Both of these patients had very fair skin, light hair, one light red. Under the very best conditions you may expect to lose two or three per cent.

Treatment.—The patient should, as early as possible, be placed in a comfortable apartment, isolated from other members of the family, with competent nurse. The room should be well ventilated without exposing the patient to currents of air. The temperature of the room should be uniform at about 68 degrees. No one should be admitted to the room except the physician and nurse. All unnecessary furniture should be removed from the room. The clothing and secretions of the patient should be thoroughly disinfected, as in typhoid fever. During the period of desquamation, measures should be taken to protect the dissemination of the dry scales. The patient should remain quiet, in recumbent position, even in the mild form, until fever has en-

tirely disappeared, and in many cases until desquamation is over, the skin during this period being so susceptible to atmospheric changes. Some have recommended the belladonna as being prophylactic, but I have not observed anything to verify this conclusion. The only thing you may hope to do for the child who has been exposed to the disease, is to strengthen the general system, so that it may more successfully resist the severe form of the disease. Webster relies greatly on the echinacea for this purpose. He says, "The echinacea fortifies the blood against sepsis, the tissues against phagedena, and the cerebro-spinal centers against acute morbid changes."

The mild form of scarlet fever usually demands very little medication, yet any case demands close attention. One reason the mild form is sometimes fatal, is because it is more often neglected by the nurse, as well as the physician. The urine should be examined occasionally, the bowel should be looked after, and the skin sponged with warm water, where fever demands it. The skin during desquamation should be rubbed with olive oil once or twice daily. This is all the mild, uncomplicated cases will usually need, except they should be fed a mild, liquid diet. The milk diet is the best when it can be prepared rightly. Malted milk answers a good purpose here.

The treatment of scarlet fever anginosa will require more medication, and the careful and persistent attention of the physician. The high temperature, the persistent vomiting, excessive cutaneous irritation, the distressing throat trouble, and various nervous manifestations, present a picture far more dreadful to the physician.

The high fever should be met as nearly as possible by the indicated remedy. I believe the aconite, when indicated by the small pulse, together with the warm alkaline sponge bath, has no equal for regulating the temperature. To this I would add the phytolacca to relieve the glandular inflammation, if the mucous surfaces are full and of a dark color, and tonsils covered with pasty, tenacious exudation. It also has, often, a diuretic effect when these conditions are present. I rely confidently upon the echinacea, not only to counteract the sepsis, but frequently to prevent it.

It will greatly aid the belladonna in stimulating the capillary circulation, and preventing stasis in these vessels. I give sp. jaborandi if the pulse is hard, the skin and mucous membrane dry.

Sulphur in small doses will often relieve the glandular enlargements promptly, and it also has a kindly influence over the skin in this disease. When gastric irritation is marked, it should be met by the peachtree infusion, bismuth, or the local application of the peachtree leaves, after bruising and wetting, with apple vinegar. Often a small piece of ice held in the mouth will relieve the nausea. The throat frequently demands some local measures.

One teaspoonful of echinacea with five drops of carbolic acid in four ounces of water, will be found an excellent spray. It should be used from one to four times a day. The throat should be carefully watched, for occasionally diphtheria may complicate the disease.

If such should be the case, the treatment should be the same as in any other case of diphtheria. If abscess forms in the throat, it should be opened as early as possible. Where the infection is very severe the lymph-nodes of the neck become involved. This enlargement may, in some cases, be so great as to cause much swelling and distortion of the face and neck. It extends, at times, under the chin, from one ear to the other, as a mass of cellulitis, which may become gangrenous. Calcium sulphide should be given in one-tenth grain doses every three or four hours, with perhaps hot fomentations locally.

The middle ear is so closely connected by means of the eustachian tubes with the naso-pharynx that aural complications are exceedingly common where naso-pharyngeal irritation exists.

The first intimation, in some cases, of middle-ear trouble, is the issue of pus from the ear. This should be kept thoroughly clean by the application of boracic acid solution, a solution of hydrastine sulphate. Paracentesis is sometimes necessary to relieve the middle ear of the pus.

Acetate or citrate of potash, gelsemium, apocynum, rhus tox., carbonate of ammonium, sodium salicylate, and the acids, are various remedies that I use in connection with this disease, according to their several indications. The patient should return to solid food very gradually, on account of the probable nephritis.

DISCUSSION.

DR. BUSHNELL (Chicago): The points which have been given by the essayist should receive our most careful attention. They should receive our unqualified approval, and especially is

this true of that part of his paper where he referred to the isolation and the prevention of the dissemination of this dread disease. I believe the true treatment of scarlet fever should be prophylactic—preventative, and if the physician of the city or of the country would properly do his duty to the community in treating every case of scarlet fever, we would soon have at least not more than 50 per cent of the cases we have now. The average physician is far too lax in his prevention of the spread of this dread disease. He cares too little for the bacteriology that we heard about yesterday, and too much about going to another case without properly taking care of his own person. Absolute isolation of the patient and the proper sterilization of everything the patient, nurse and physician uses while in attendance on the case would prevent largely the spread of this trouble. If we would properly treat the throat of every case, we would largely reduce the liability of middle-ear complications. These are almost always an extension from the throat. Albuminuria is an almost constant symptom, and will often clear up the diagnosis as against measles, etc., and the kidneys should receive attention from the beginning.

Dr. Adolphus: To me this is not the dread disease it once was. I have a specific, and it renders the disease no worse than measles. The one treatment of scarlet fever that with me is preventive is the following:

℞ Phytolacca .....ʒ ij
Echinacea .....ʒ ij
Aconite .....gtt. viij
Syr. simplex.....q. s. ℥ ij

Mix. Sig.—A teaspoonful every one or two hours. Give a teaspoonful every hour until the fever abates, then every two hours. You can let the children play with the others, and put them on this mixture, and they will not take scarlet fever. I cure it in two to five days. I have had sixty-five cases and they never stay in bed over five days, and desquamation is over in twelve days.

Dr. Harbert: Some children take scarlet fever when associated with the others, and some do not, and I do not believe this treatment will cure every case. The trouble I have usually had is in the complications which come up when you think the child is out of danger, and in the period of desquamation. These compli-

cations come up and they try the soul. Recently about the time desquamation began the child broke out with chicken pox.

DR. JOHNSON: In reference to the treatment of the throat, that is something one must be very careful about. It is dangerous to swab and spray without any reference to the force used. The prevention of internal ear trouble has been mentioned, and for this there is nothing better than the internal use of ichthyol.

DR. HENDERSON: In connection with the idea of local applications in this and other diseases, I wish to mention one I have been using a good many years with satisfaction. Some fifteen years ago I was reading a journal in which I saw a solution of sulphur and lime mentioned. I have since used it constantly, and it prevents middle-ear complications and that line of troubles as well as anything I have ever seen. It consists of one part of sulphur, two parts of lime unslacked, twenty parts of water. After slacking the lime in the water, bring it to a boil, add the sulphur, and with constant stirring reduce under heat to twelve parts. This gives a clear, perfect solution of lime and sulphur. I dilute this, and in some cases use a mop, in others a spray in the throat. It is absolutely harmless, non-irritative to mucous membranes, and has given me splendid results.

DR. RICKARD: In some cases we are at a loss to understand how the child contracted the disease, as we know it must come in contact with the germ. Twice in my experience I have traced the infection to a little suit of clothes that had been bought, and had no doubt been made in a sweatshop in the city. The germ may carry and be preserved a long time and yet be potent. I want to make a point about the treatment in cases where we meet diphtheria. I believe that we often have diphtheritic sore throat with scarlet fever, and I am good enough Eclectic to use it in these cases. I have several times used it and know that the result was from the antitoxin. I have used all the remedies that we use and have used them carefully, and the child was growing weak, and I am satisfied they would have been angels before long had not the antitoxin been used. I use it thoroughly, 3,000 units the first dose for a child of five years. In two hours the throat clears, the symptoms are better, fever reduced, the skin begins to moisten, and with another injection of 2,000 units the child, in three days, was fully recovered.

DR. DUVALL: I would ask the preceding speaker if there were any carbolic acid or salicylate in the antitoxin used?

DR. RICKARD (continuing): I thoroughly understand that the probabilities are that the antitoxin contains some of these drugs. I care not. It is a drug that has produced a good effect, and you will find it does produce it, and we should be ready to use it if it will save life.

DR. JOHNSON: Of course you all understand that I do not believe in antitoxin. I have never seen anything yet to strengthen my belief in serum therapy, and until I do, I shall hold to the conviction I now have. In reference to the antitoxin in this case, if he had used the normal salt solution, he would have gotten the same result. Gentlemen, these are my views. I believe you will get better results and more satisfactory from the normal salt solution. I had a case at one time that had diphtheria, and I would have used antitoxin if I could have gotten it, but I could not, and I think it fortunate I could not. I injected about four ounces of salt solution under the arm, and, to my great surprise, the child was better in the morning. A second child in the same family was treated the same way, and both got well.

DR. MCKEE: Nephritis is the great complication of scarlet fever. I use sulphate of magnesia when the kidney begins to soften and there is puffiness around the eyes, and I use enough to get a big watery stool.

DR. HITE: In treating the sequelæ, the nephritis that follows is most serious. First of all, you must compensate for the loss. Calcium phosphate and tincture of iron is a reconstructive. Give belladonna in frequent doses and you will find the œdema will disappear, the albumin will go away and you will notice a difference in a few hours.

DR. TATMAN: In speaking of the use of iron for the nephritis of scarlet fever, I would say I have found Howe's Acid Solution of Iron the best. I use it with phosphoric acid in weakened conditions of the heart, and combines Lloyd's iodine with it. If the digestion remains out of order, use pepsin in the same mixture. I have had better results with that than with anything else. Of course we must look for specific indications.

SPECIFIC MEDICATION IN CHILDREN.

W. N. MUNDY, M. D., FOREST, OHIO.

Were we to give a direct answer to the question, what are the peculiar advantages of specific medication in diseases of chil-

dren? the answer would be briefly this: It is the only tangible method of medication, either in young or old, and possesses no advantages in the treatment of children, that it does not possess in the treatment of adults. I will elucidate this answer by illustrative cases, not hypothecated, but drawn from actual experience.

We are frequently called to the bedside of a child, when, on examination, we find it impossible to name the disease. To one versed in Specific Medication, it is of no moment. Our system of therapeutics tells us just what to do, and the performance of that duty often turns the tide just as much toward ultimate recovery as though we were enabled to make a full and classical diagnosis.

Just here my mind is carried back to student days when, sitting in the amphitheatre of a metropolitan hospital, I listened to a clinical lecture by a celebrated physician. The patient lay on a cot before the class, presenting, as I see it now, many of the initial symptoms of typhoid fever; yet some of the latter, the pathognomonic features, such as the rose-colored spots were missing. After a very able and learned discourse upon the etiology, symptomatology and pathology of typhoid fever, he closed his discourse and the treatment by remarking, that as all of the typical symptoms of typhoid were not present, he could not make a positive diagnosis at that time, hence he must place the patient upon an expectant treatment, and he was given quinine and whiskey until the diagnosis was cleared up. This occurred before bacteriology was in its halcyon days. Eberth's bacillus was unknown as well as was Widal's reaction. Our notes on the case concluded with the statement that the patient died and a postmortem revealed typhoid ulceration of Peyer's patches.

How differently might the story have been written had the lecturer been familiar with and followed the methods of direct medication. What care its students, whether the patient has typhoid or not, only so far as making a correct diagnosis is concerned and a consequent prognosis. Personally we believe this knowledge essential to a well-rounded and learned physician and a good diagnostician commands the respect of his fellows at all times. It is a mark of learning. In the treatment it is not always so essential.

But to return to the case. The patient was dull and stupid, inclined to be drowsy; these indications call for belladonna. The tongue was dry, brown, fissured; hydrochloric acid. The abdo-

men tympanitic and tender; turpentine stupes, or inunctions of turpentine, camphor and lard—no quinine nor whiskey; the patient was not ready for quinine; in fact it was contraindicated.

This case is recited simply to illustrate the advantages of a system of therapeutics that embraces some degree of certainty. It tells us what? It tells plainly what to do when you are at the bedside. You do not have to wait for the development of a sufficient number of pathognomonic symptoms, in order to make an unmistakable diagnosis.

I will ask your forbearance while I illustrate this fact in another manner. It is a well-attested fact that convulsions frequently bear the same relation in children, to many of the acute diseases, that do chills in the adult. This being a fact, we are frequently called to see a child, with the following history: Spasms, fever. No eruption or sore throat, in fact nothing upon which to base a positive diagnosis. What will be done under the circumstances? Wait for their development? Some might, but not they who have studied Direct Medication. We prescribe aconite and gelsemium; or it might be aconite and rhus tox., and in most instances the patient is on the royal road to recovery, no matter what may be the name of the disease which ultimately develops.

If you will kindly indulge me once more I will endeavor to illustrate the meaning of this paper by reciting a case in another manner. Recently I was called to see a child with a sore throat. I found the following conditions: Exceedingly rapid pulse, elevated temperature, swollen tonsils with patches on them, as well as on the uvula, with swollen cervical glands. No doubt you would at once say diphtheria. Such was my judgment, at the time. Aconite, phytolacca and sodium sulphite were prescribed and in two days the patient was discharged. This, we presume, was an aggravated case of tonsillitis, possibly a case of so-called pseudo-diphtheria. It certainly was not true diphtheria, the recovery was too rapid for that. Recovery took place before a culture and microscopical examination and diagnosis could have been made. We surmise that many of the recoveries attributed to antitoxin are of the same nature.

It is an old saying "That babies never mislead or lie to anyone." They do not rehearse or recount their symptoms. They do not tell us of their aches and pains, as do adults, and often purposely attempt to mislead us. We make our diagnosis of the

ills of these little ones by observation, or, in other words, from an objective standpoint; we see, feel, and hear. This being true, our medication or treatment fits the conditions we learn, by the exercise of the faculties or senses.

Several years ago a medical friend made the following observation to me. He said the young Eclectic possesses a wonderful advantage over the young men trained in the Regular school. We naturally asked in what way? Why, said he, with your system of teaching therapeutics a young man fresh from college, when he sees a patient, no matter whether able to make a positive diagnosis or not, knows just what to do; with our teaching he must frequently wait for the disease to develop, so that he may attach a name to it. In justice to our friends, we must admit that they are fast leaving their old teaching and are being guided by symptoms. Is Specific Medication the leaven that is destined to leaven the whole lump? Specific Medication, as we have said before, is Direct Medication, and one well versed in it need not hesitate to assist his patient. It is the method for both young and old. We see our little patient is restless and uneasy, we note the sharp, shrill cry and contracted brows—it calls for rhus tox. He draws up his feet and cries, as if in pain, the abdomen is tense and hard; we prescribe nux. He is teething, has diarrhea, the stools are greenish in color, is uneasy and frets considerably; we prescribe matricaria. Can anything be more easy and certain? Using the language of our old teacher, Prof. J. M. Scudder, "One has only to study the method to learn how easy and certain it is."

DANGER SIGNALS.

H. W. FELTER, M. D., CINCINNATI, OHIO.

The appalling number of fatalities due most largely to ignorance and carelessness, or to ignorant carelessness, on the part of parents, suggested the rather lurid title of this paper. Some parents are careless of their sick children because they are too lazy to look after them; to others, danger in sickness is a total stranger until some mishap occurs; while others are indifferent because they wish to avoid cultivation in their children of the habit of ailing, disliking to have them complain of what seems to them trivial complaints. They would have their children all

Spartans and they take every opportunity to discourage recitals of aches and pains or other discomfort. Others, again, are careless from lack of training and knowledge and would cheerfully do the things usually left undone, did they but know what was needed and how to go about doing the thing needed. Of the class that is over-solicitous every doctor has his share, often to his disgust, but even he must be careful where he draws the line, lest his discomforture lead him into the careless class.

We firmly believe that the practice of medicine does not consist merely in the diagnosis of disease and the administration of drugs. We believe that today, as much as in the past, should the title of doctor signify a *teacher*. In order to fulfill his mission the doctor should feel it incumbent upon him to teach the ignorant, to reprove the careless, and to restrain the fanatically over-solicitous parent.

It is among the toiling millions, perhaps, that we find the greatest amount of ignorance and carelessness in regard to the child, dread of expense, added to an already limited income, absorption in the daily fight for bread, and scant knowledge of the simplest symptoms of disease, leads an otherwise loving parent to fail in recognizing indispositions in their children until serious illness has decreed "too late." Then succeeds the very exacting demands upon the physician to do something at once, and the expectation of a miracle-working to save the child.

The doctor, then, should teach the people the better way of preventive medicine. In this paper I purpose briefly to make a few simple suggestions and to enumerate a few symptoms which should be taught to mothers as "danger signals."

First of all, I would encourage the purchase of a fever thermometer, and this, too, when we know that in the hands of some physicians, even, it is a dangerous weapon. We refer to those who lay too great stress upon elevation of temperature and combat the same with depressing antipyretics. Fortunately, however, the parent is not likely to do more than endeavor to learn whether fever is present. The body, in health, permits a temperature not exceeding 98.7. A continued increased heat, be it ever so slight, means a departure from health. This departure one must recognize as a wrong of life and take proper steps to rectify it. A wrong of life means a danger to health if not to life, and the business of the physician, and not the parent, is to restore health.

How many of us have known parents to observe that their

children appeared to have fever, and yet have sent them to school, when they should have been in bed. When they have become too seriously sick to arise from bed they will confess that the child had complained, but that they had regarded it to be only a pretext to remain "away from school." The parent should be taught that no child should be sent to school while unwell. Encourage them to employ the thermometer to settle all doubts, and if fever is present it cannot escape detection. Instruct the parent that no matter how slight the pyrexia it means something wrong—that it is a "danger signal."

Teach the parent that a chill has a meaning. When a child persistently sits huddled up near the stove or over the register and complains of being cold, it should arouse suspicion and the thermometer will then probably register a rise of temperature. A chill, then, should be characterized "a danger signal." A parent should be taught that vomiting often means more than simply an over-loading of the stomach. Fortunately in the majority of cases it is Nature's rebuke against gastric gorging, but too often to allow one to pass it carelessly it means cerebral disturbances, traumatic or otherwise, cerebrospinal meningitis, scarlet fever or other serious diseases of childhood. Instruct the parent to look for other symptoms and not to be too late in calling the family physician. Impress upon them that vomiting may be a sign of danger.

Of all the conditions about which parents are most careless we recall nothing so common as sore throat. As a rule sore throat is thought but little more than an inconvenience by many people, but while the writer is aware that many will disagree with him, he is inclined to view all forms of sore throat as more or less contagious and never devoid of danger. Under no circumstances should a child, while suffering from sore throat, be permitted to attend school or church or to play with other children. Isolation is the only safe procedure, for who is skillful enough to predict whether or not diphtheria or scarlatina may not supervene. How many times have we been called to attend a fatal membranous croup, only to find that the parent had noticed a slight sore throat a week or so previous, but had regarded it as of little moment. We cannot too strenuously contend for more heed on part of parents in the matter of sore throat, a condition standing out more prominently than most others as "a danger signal."

A rash is not to be lightly regarded. It may be simply that erythema. Let the physician decide. It matters not. Let the mother be taught that rashes are abnormal manifestations, generally a language bespeaking some internal wrong. As a rule, the rashes of scarlatina and measles are accompanied with such a degree of illness that the parent cannot misjudge the complaint as trivial.

Yet, as in the past winter, many very mild cases of scarlatina developed in which the rash was evanescent and the general symptoms slight. These cases, in my experience, have always proved sources of danger from the belief that they had amounted to but little; therefore the child was not very ill. A puffed, waxy face, scanty urine, vomiting and œdema a few weeks after revealed only too clearly the danger the patient was passing through, and he is a lucky child whose outraged kidney did not carry him to the grave.

Cases of mixed infection are very apt to be followed by such consequences. Many cases of rubella were seen this year, in which it was hard to determine whether measles or scarlatina predominated. Singularly such cases (which appear to be a combination of scarlatina and measles, with one or the other predominating and of a mild type) present but little signs of sickness, but the rash are followed by renal unpleasantness later. We should caution parents to look upon all rashes with suspicion—they are "danger signals," and more particularly should they be followed by desquamation. Impress upon the parents aftercare in such cases.

The matter of contagious diseases reveals dense ignorance on part of the populace and in no department of preventive medicine is there so much need of instruction and warning. It is far from the purpose of public authorities to heap burdens upon themselves in the matter of quarantining such diseases, yet in nothing pertaining to public affairs do we find greater opposition, and chiefly through ignorance. We do not refer here to those who honestly, intelligently and consistently oppose vaccination and similar reputed means of prevention of disease, but to those who dislike to have posted upon their houses the sign of "contagion within." Could they but be made to realize the danger they are exposing others to, and the possible number of deaths that annually follow heedlessness in regard to contagious diseases a great step would be made toward the eradication of many

of our deadliest enemies of the young. It is our duty to teach parents the meaning of contagion and the diseases transmitted by it. We are well aware that health boards are often arbitrary and more often injudicious in the matter of quarantine, but we must concede that their efforts, as a rule, are for the best interests of the people.

Parents should be cautioned that discharging ears are a menace to the child's future health, and that a persistent cough should not be neglected on the supposition that it is merely due to a cold, or, as they often inform you, that it is from the stomach. No matter what its origin it is a wrong of life and demands skillful treatment. There are many other things that might be mentioned, but these suggestions are already growing lengthy. Thus we might urge physicians to teach mothers the value of good candies for children and the danger of candies not made from pure sugar alone. We might also urge that physicians inaugurate a crusade for school instruction in the matter of contagious diseases, etc.

Finally we would caution against visitors in the sick room as dangerous intruders, for no acute sickness was ever made better by such visits (barring those, of course, in which the patient's wishes are to be gratified in moderation); nor was the danger of transmission of disease ever lessened by them. We would exclude all unasked by the patient, from the kindly and benevolent pastor, who too often is indiscreet and forgets his calling so far that he reels off stock health maxims and much medical advice, to the over-anxious and domineering relative and the neighborhood gossip with the natural history of all diseases at her tongue's end, and the vivid portrayals of the sufferings and deaths of all who have passed to the "great beyond" within her memory. In nine cases out of ten the visitor, in an ungarded moment, relates something that works upon the vivid imagination of the child, and havoc is wrought thereby. Impress upon the parent that visitors with their outrageous tales of woe and horror are often as dangerous as dynamite bombs; and that she is little less dangerous who calmly stays and stays in the sick chamber, until your patient's nerves are wrecked or an increased fever means a night of restlessness, if not of delirium.

DISCUSSION.

DR. HAMLIN: I want to commend the paper of Dr. Felter as being timely. Things that appear to be very small and insig-

nificant at the beginning often result in something serious. A few days ago a lady came to my office about eight o'clock in the evening carrying a child about two years of age in her arms. She said: "Doctor, I want you to examine my baby and see whether it is dangerously ill." She told me where she lived. I asked whether she had a physician, and she said yes. I asked if he was still treating the case and if she wanted to change physicians. No, she did not wish to change. I told her I could not examine another physician's patient and pass judgment upon it. I told her to send for her physician at once and let him advise her. The child had membranous croup. The funeral, I learned, took place on Monday. She said her physician had said it was only a sore throat and would be all right in a day or two. The paper covers that point and puts up the red flag of danger. I am glad this paper was brought out. Be on the watch for the danger signals, be ready for them, and be cautious what we tell our patients. Do not say it is insignificant. But tell them to give this medicine, as directed, and report promptly if any change occurs.

Dr. Truax: I want to commend Dr. Felter's paper, and to second what Dr. Hamlin has said so ably to emphasize it. The eruptions are significant. In the community where I have been practicing there has been an epidemic of measles. It has been called a rose rash. The patient will be very sick for a little while. Last week a little girl was brought me by the mother, broken out, skin puffy and eyes bloodshot, but there was nothing but the eruption. No external symptoms of anything I could say was measles. I told the mother to take care of her and let me know how she was. She did not. The child grew worse, and another physician was called; he ordered plenty of ice water, and ice packs, and as the doctor said, a moment ago, the funeral took place in a few days.

Dr. Goss: There are one or two danger signals I would call attention to, at this season, especially. The forehead sweats, Sweats badly at night, and you will find the pillow drenched, even if the weather is not very warm. That means rickets. You will find at the same time cold extremities, open fontanels and a rather square-shaped head, that will make you think of rickets. The child is restless at night. I always look out for any bad feeding and try to correct it. Often, on shaking grown people's hands, I note if they are hot or cold, and what kind of circula-

tion they have. When I look them in the face I sometimes think what their troubles are. And when I take the little people up in my arms I feel the calves of their legs to see if there is a relaxation of the muscles. I regard this as a danger signal.

DR. TRUAX: If there is anything in the world that marks the Eclectic physician, it is his attention to details, and it is because of this that he stands prominently above the physicians of the world in the treatment of diseases of children. When I first began, years ago, I was with an old-time old-school physician, and when we were called to see a child it was one of two things: teething or malaria; and the bulk of these children died. If I wanted a consulting physician I would call the worthy author of the paper, for the reason that the details of the child's life means the life of the child.

DR. PORTER: I would like to ask if a great many of these danger signals need medical treatment.

DR. FELTER: I think they require care more than anything else. The child usually is not put to bed early enough. Sometimes if put to bed and watched and kept quiet they will avoid trouble. They require care and advice.

DR. HITE: For the picture Dr. Goss has presented of head sweats, I would suggest calcaria carbonate 3x and phosphate 3x about 10 gr. dose in the morning. We must look after the character of the food in children of that kind.

DR. FELTER (closing): I live in a German community, and I find the people often careless about these things. I have been called in a number of cases where it was too late. They had been neglected. I considered my essay a trivial affair, but I thought it might provoke some discussion.

ARTIFICIAL FEEDING.

GEO. A. DOSS, M. D., MORELAND, GEORGIA.

Artificial or infant feeding is a subject that appeals to the mind of every practitioner of medicine, from the fact that he is often called to prescribe or name the food for the baby who has to be taken from its mother's breast, from numerous causes—such as pregnancy, sickness, or death, or it may be that the supply of milk furnished by the mother is not sufficient in quantity or quality for the noruishment of the child.

What this food should be and how prepared no two physicians are fully agreed. My own observation and personal experience would suggest to me—that whatever the food, the constituents should correspond as nearly to the mother's milk as possible, and that the food should be free from all impurities.

You may feed it chicken broth. Chop up the dressed chicken, beating it into a pulp, then put one pound of the chicken and a pint of water into a porcelain pot over a slow fire; keep the heat down to 150 deg. Fahr. Cook slowly for two hours, adding water of like temperature to make up for evaporation. This broth contains about 40 per cent of the constituents and should be diluted.

Cows' milk treated with dilute muriatic acid, pepsin, and whey agree with some children, when other food appears to be injurious, causing dyspepsia, chronic looseness of the bowels, emaciation, and restlessness from inanition.

A good formula would be : Fresh cow's milk, one-half pint; acid hydrochloric (dil.) fifteen drops; pepsin, pure, forty grains; whey, one-half pint. Mix. Beat the milk and set aside for one hour, stirring often.

A large part of the proteids will be peptonized, the remainder will be in small particles; part will be converted into syntonin; the proteid constituents will be much modified for solution in the stomach and better fitted for absorption.

Another preparation is made by adding the following: Fresh cream, one ounce; milk, one-half ounce; lime water, one ounce; sugar water, one and one-half ounces. Mix. This is for one meal for an infant less than six months old. All artificial food should contain proteids equal to not higher than two per cent; sugar of milk, seven per cent; fat, four and one-half per cent; this is for infants under nine months of age.

There is quite a difference, as seen from the following table, between a woman's milk and cow's milk:

	WOMAN'S	COW'S
Specific gravity	1033.5	1033.5
Water	100.10	91.08
Butter	43.43	34.00
Lactose	76.14	52.16
Casein	14.52	29.12
Salts	2.14	6.00

The casein in woman's milk amounts to one and five-tenths

per cent; the fat amounts to four and thirty-four-hundredths per cent; the lactose to seven and sixty-hundreths per cent. In cow's milk the proteids are two and eight-one-hundredths per cent; butter, three and four-tenths per cent; lactose, five and twenty-hundredths per cent.

Woman's milk contains less than half the proteid constituents common to both kinds of milk—as seen from the following table:

	WOMAN'S	COW'S
Specific gravity	1031.	1030.
Water	87.163	87.012
Casein	1.064	3.222
Fat	4.283	4.209
Sugar	7.407	5.000
Ash	0.101	0.527

Church's table of camparison is as follows:

Proteid	woman's	1.8	cow's	4.3
Fat	"	6.0	"	3.8
Sugar	"	7.0	"	5.0
Ash	"	0.3	"	0.8
Water	"	86.7	"	87.00

Thus it is plainly seen that woman's milk contains much less of proteid matter than cow's milk. Her milk also contains much more fat and sugar than cow's milk.

The food of infants, then, as seen from these tables, consists sparingly of proteids and largely of carbohydrates and fats. Frey's analysis places the ratio at one to eight. Meigs' analysis at one to ten. Church's analysis at one to seven and one-half. In cow's milk the proportions of proteids to the carbohydrates are as one to two and one-half. The difference is easily seen.

This shows you the vast difference between woman's milk and cow's milk, and shows how unfit cow's milk is for feeding young infants, in its crude or fresh form.

The cow's milk contains too much proteid matter and too little of the carbohydrates, and should never be given to young infants until the constituents are so changed as to more nearly approach woman's milk in all its essential qualities.

The points sought, then, are to reduce the quantity of casein, modify its physical properties; to add the proper quantity of sugar and fat.

As to the best diluents authorities on "Artificial Feeding" disagree. All agree, however, that cow's milk must be diluted to

lower the quantity of casein, but are not agreed on the best means of modifying its physical properties.

The lamented Dr. Adolphus prepared a diluent in the following way, that he liked very much: "Rub to a smooth, thin paste a few tablespoonfuls of flour, have ready water boiling in a porcelain-lined kettle; slowly pour the thin paste into the boiling water, stirring at the time to prevent lumps forming; keep up gentle boiling for half an hour longer; remove from the fire and let it cool and add a tablespoonful or two of Taka-Diastase, and stir.

"At first dilute milk with it one-half; then slowly reduce the diluent as the infant begins to thrive and grow in size and strength."

Where we have an acid diarrhea, pain, fever, restlessness and loss of flesh; add lime water, two parts; cow's milk, three parts; cream, one part; sugar of milk, forty grains to the ounce. Feed one or two ounces every two hours, not more.

These symptoms are caused by infantile dyspepsia—and the point is to give rest to the stomach and intestines.

Biedert recommended the following preparation as a food during the first few weeks of life, when the infant is unable to digest cow's milk: Cream, four ounces; warm water, twelve ounces; sugar of milk, one-half ounce. This food contains: of casein, one per cent; of fat, two and one-half per cent; of sugar, three and eight-tenths per cent; and should be given a trial, as it is all right.

From analysis a pint of cow's milk contains quantitatively the following organic solids: Proteids, 331 grains; fats, 307 grains; sugar, 383 grains; total organic solids, 1021 grains. A pint of woman's milk contains: Proteids, 111 grains; fats, 329 grains; sugar, 567 grains; total organic solids, 1007 grains. Therefore, cows' milk contains three times as much proteids as woman's milk. Woman's milk contains 19 per cent more of fats and nearly twice as much sugar. Then, an infant fed on cow's milk must receive it diluted with proper diluents equal its bulk; of sugar of milk, 200 grains; cream in quantity equal that originally in milk before dilution, e. g., a pint of milk must have added to it a pint of diluent; 200 grains of sugar of milk; and eight ounces of fresh cream. If prepared in this way it very nearly approaches woman's milk in constituents and properties.

Since the food has been prepared, how much should be fed the child during twenty-four hours?

A child anywhere from four weeks to ten months old can take up till the fifth month, five to seven gills of prepared food per day; from the fifth to the tenth month three pints in twenty-four hours. From ten months up you may give this amount of prepared food and in addition bread and butter, buttermilk, chicken broth, and good, ripe fruit. Now, never give raw, undiluted cow's milk to infants under eight or nine months old. Amylaceous food should not be given them in large quantities at and under this age, unless a sufficient ferment has been previously properly added to convert the starch into glucose. Unconverted starchy food fed infants under this age is poisonous.

The cause is understood when we remember that previous to the development of the salivary glands and pancreatic action starch is indigestible by the infant's digestive organs, the unconverted starch acting as an irritant to the mucous membranes and glands. An infant four months old will thrive on four ounces of prepared food every three hours. All infants should have cold water frequently offered them. Many mothers neglect this important point and often give them food when they need and want water.

The first year is a critical period in infant life; dentition is in full blast, the glands of the mouth and intestines, the nerve centers, are in a state of functional activity, the nerves of vegetative life, are in intense activity, growth and cell proliferation, tissue metamorphosis, metabolic changes—all these are in an excited state. This is, physiologically speaking, the highest developing period of life, laying the foundations for the building of the entire body; it is the time when the digestive and assimilative organs need the most correct functionation and the building of the tissues and organs need so large amounts of well-prepared pabulum out of which the finished organs are to be built up, kept in repair, eliminations of effete material quickly discharged and expulsed from the body. With eyes of vigilance it stands in hand for us to see to it that the food, hygiene, environments, etc., are kept at the highest standard of perfection attainable. Statistics show that more than forty per cent of infants die before the fifth year. A frightful mortality, and worse still, more than half of it is preventable. The first year of an in-

fant's life is the perilous period of its existence, and when reared by hand the dangers to life are increased ten-fold.

The most of the ills and dangers to infant life arise from faults in the alimentary tract owing to improper and careless feeding. When the baby's bowels become deranged, stop feeding at once and give mucilaginous drinks. There is certain to be excitement of the glands and mucous membranes, causing more or less fermentation in the intestines.

By stopping food, administering lime water, glycerin and pure sulphite of soda good results are often produced. Cutting off the food is of prime importance, together with mucilaginous drinks. If the child is nursing its mother, the frequency of giving it the breast must be stopped; administering lime water and glycerin occasionally.

A good prescription follows: Lime water, four ounces; glycerin, two drams. Mix. Sig.—Two to three teaspoonfuls given in a weak solution of lacta-preparata of equal bulk, repeated every hour or two. If the child is fed by hand a good formula is: Cow's milk, one ounce; cream, one ounce; lime water, one-half ounce; barley water, one to two ounces. Sig.—One to three ounces at intervals of two hours, watching effect of food, being careful not to overfeed. Children from one to two years old often do well on oatmeal, cow's milk, cream, bread and butter, and nothing more. Here is the analysis of oatmeal:

Water	8.7
Fat	7.5
Starch	64.0
Albuminoids	11.7
Salts	1.5
Cellulose	6.6

It will easily be seen that oatmeal is rich in nitrogenous matter and fat in considerable quantity.

Its albuminoids are easily digested. It is one of the best foods we can give children, because it contains much muscle and fat-making constituents and with milk it is almost a complete food. Thousands of infants are born to die martyrs, sacrificed to the abominations of improper and bad feeding.

Milk, lime water, and sugar of milk is often beneficial in the diseases of children two and three years old; as well as mucilages added to milk, using muriatic acid and pepsin. The last combination will do you good in diseases incident to childhood. The

method of preparation has already been given. It checks diarrhea, stops fermentation, and promotes digestion and assimilation. Physicians often attach too much importance to medicines and too little regard to proper feeding and hygiene, in caring for sick infants. When the nursing bottle is used the bottle should be scalded out at least twice daily and rinsed every time it is used by hot soda water; the nursing nipple must be kept clean. In fact everything used in feeding or nursing the baby should be kept perfectly sterile. As the child grows older the food may be changed as needed. After the first year: A soft-boiled egg, corn mush, light bread and butter, fish, oysters, custards made with egg, baked apple, fresh ripe fruit, beef tea and vegetable soups may be allowed in carefully graded quantities.

My advise, then, is that all food fed to infants (and children while sick) should be first sterilized, and make by such additions as is necessary to correspond to its mother's milk as near as practicable before being given. That the quantity given should as nearly correspond with nature—it's mother's milk—as deemed necessary—being careful at all times to avoid over-feeding, feeding of indigestible matter, and the feeding of impure foods.

THE SUMMER COMPLAINT.

J. P. RICE, M. D., FREDERICKSBURG, TEXAS.

Something new, may be asked? Why new? May not the old be good enough? We seem not content with what we have, but are forever seeking for better. And the new has always the charms of the possibly better, so that we are ever ready to credit it with what our hopes reach out for, and believe in it till the trial has demonstrated its true place.

And in fact this running after the new often results in the better methods being forgotten. The innovator's best fields are in the forgotten methods of the past. I have nothing "new" to tell you as to the treatment of the summer complaint. The yearly slaughter of the innocents continues; each succeeding summer sees the long trains of carriages following the little white hearses with the little white coffins to the cemetery, while the newspapers tell of the long lists of victims of cholera infantum.

This in spite of the fact that no deaths have occurred in the

hands of those who know the sulphocarbolates. For many years the chief element in the prognosis has been the belief of the attending physican in intestinal antisepsis. And as long as this is so—and there yet remains a large proportion of the medical profession who do not appreciate the vital importance of this principle—the summer Herod is still enthroned and Rachel weeps for her dead babe.

Much has been accomplished by insisting on hygienic cleanliness of the house and vicinity—of the child's clothing and its care and intelligent supervision over the nature and preparation of its food. But in spite of all this, and much more, there will be many a child in its second summer prostrated with summer complaint.

First clear out the bowels and give a teaspoonful of neutralizing cordial every two to four hours until the stools are natural in consistence and odor, and follow with the sulphocarbolate of zinc, from one-sixth to two grains every half hour till the fermentation or microbic action has subsided.

Should the child reject it, give with each dose a grain or two each of bismuth subnitrate and peptenzyme. Fever calls for sp. aconite, dysenteric straining for sp. ipecac, exaggerated peristalsis for sp. ipecac, and enemas of hot water from one-half to one gram of silver nitrate in half a pint of water. Possibly a little codeine may give relief, but the danger of opium is so great that we hesitate to mention it.

If violent vomiting and purging indicate exaggerated irritability of the vagus and the child is in a state of, or upon the verge of collapse, a hypodermic of atropine in full dose for a child will save life where less scientific treatment would certainly fail.

Convince the parents that it is not necessary that the child have something to eat every ten minutes. Stop stuffing them. Let the stomach have a twenty-four-hour rest—it will not starve, and often this will stop the vomiting when every remedy will fail. Warm baths and enemas will relieve the thirst—engendered by the draining away of the fluid from the tissues, by the discharges.

Many times during the attack there is need of stimulation to sustain the failing vitality. Caffeine valerianate, nuclein, the milder chalybeates like iron phosphate and quinine sulphate, with quassia, are well suited to the stages of convalescence. The secretions must be kept up and all those of the digestive system are favored admirably by sp. juglans, which may be given to a baby

in doses of a teaspoonful every two hours, from a mixture of ten drops specific juglans to four ounces of water. If sleep is disturbed, even when all possible has been done to remove the cause of the uneasiness, a little monobromate of camphor acts well, stimulating a healthy reaction at the same time.

In the stage of collapse, when the vital powers are overwhelmed by the full force of the malady, reaction may be induced, as I have said before, by a full dose for a child, of atropine hypodermically, or a little specific capsicum given every ten to thirty minutes until the child begins to warm up.

But don't forget to take the temperature and be sure you have not a case of sunstroke to deal with; in which case you need iced water enemas, ice to the head, sp. gelsemium from six to ten drops, in four ounces of water, a teaspoonful to be given ever ten minutes and the treatment for sun-stroke in general.

Temperature of 105° and over does not come under the head of cholera infantum, even if the bowels are loose.

Just as soon as the first ill-smelling stool is passed, the child must be placed on the aforesaid treatment with the neutralizing cordial, and it must be kept up and resumed every time such a stool is passed.

Milk is no longer regarded as the only food for a sick child.

Too many lives have been sacrificed to that fetish. The raw white of an egg in water, fresh fruit juices, plain soups, barley or rice water and the gruels made with Iceland or Irish moss are well suited.

If the child is weak, what is so well suited as a little coffee?

Give a teaspoonful and see how it revives a drooping babe. Bovinine in ten-drop doses every two hours will do wonders in the way of sustaining strength. In many cases there is an irritability of the stomach that does not subside under the well-appointed treatment and diet. There is where the arsenite copper comes in nicely—1-500 of a grain to twenty-four teaspoonfuls of water—give a teaspoonful of mixture every three hours. The difficulty may be in the duodenum, but the remedy is valuable, whatever the explanation.

When the case is a scrofulous or debilitated subject, the lime salts are usually indicated, and there we give the calcium sulphocarbolate instead of the zinc, but in much larger doses, and add calcium lactophosphate, one-sixth of a grain every hour while

awake. But if acidity is manifest we use the sulphocarbolate of soda in four times the doses of zinc.

Are astringents ever indicated? Sp. nux covers most of the indications, but sometimes tannic acid, the active principle of the whole family of vegetable astringents, comes in handy. Cotoin is said to be useful only in tubercular diarrheas, but this we do not believe, having seen it benefit these cases when fever is absent.

THE BEST METHOD OF REDUCING HIGH TEMPERATURE IN CHILDREN.

ELOISE GROSENBAUGH FOLTZ, M. D., PERRY, IOWA.

The reduction of temperature in nursing babies and small children is a subject deserving the most careful consideration of every conscientious physician.

Who can estimate the harm done by the large doses of antipyretics, quinine, morphine and calomel, to which our little sufferers have been subjected, when perhaps not one of these remedies had been indicated. Let us remember that temperature in children is always higher than from similar causes in adults, and that we cannot estimate its significance or treat it by the adult standard.

What could be worse in this case than a cold pack or cold sponge bath, no matter if your thermometer did register 106°. This is the time for hot bath, hot packs, hot mustard applied to spine, the feet put into hot mustard water, gradually adding hot water till they are rosy. Relieve the stomach of any indigestible milk curds or foods and secure a good action of bowels by means of warm saline flushing and laxatives. Stimulate the heart if it is needed and add belladonna to the sedative. Belladonna is specifically indicated.

Don't fail to try a nursing bottle filled with hot water, taken slowly, or the warm saline bowel injection through a soft rubber catheter, in your cases of cholera infantum with the above symptoms. You will see the vomiting subside and the skin become warm and moist and the temperature fall.

I have tried, in this paper, to apply my methods to symptoms and conditions rather than to a disease, and it matters not what the disease is, I meet these symptoms as I have indicated.

We, as Eclectics, who claim to assist nature in throwing off disease, should be careful how we depress vital forces with coal-tar products, or further check retained excretions by opiates. High temperature in a child does not always signify a serious condition. You have all found your little patient at play at your next morning visit, with a temperature normal, or nearly so, which had registered 105 or 106 the previous evening. It becomes serious when it persists in remaining high in spite of all rational efforts to reduce it. For that reason it must always be taken into consideration.

The method of reducing temperature must be governed wholly by the cause of the temperature and the condition of the patient. Therefore, if possible, first determine the cause. If it is indigestion, as shown by a dry, hot skin, coated tongue, distended abdomen with sluggish action of bowels and fetid passages, great thirst and vomiting of a watery fluid, I begin by placing the patient in a tub of warm water with a cloth wrung from cold water on its head, gradually cooling the bath water. If there is much nervous irritation I prefer the pack or graduated sponge bath—there is less danger of a convulsion. This bathing is to be repeated every hour or half hour, consuming ten or fifteen minutes in the process, till the temperature is down below 103°.

After the first bath I apply a mild mustard draft over the spine and one over the stomach, to help check the vomiting. To a child two years old I give a calalactose tablet (1-10 grain calomel triturated with bis. sub. nit.) dissolved in a teaspoonful of water.

Repeat the tablet in an hour and follow with a small dose of castor oil or rochelle salts, which is to be repeated every two to four hours till the bowels move freely. To a child under two years old I give half a tablet every hour for two or three doses.

This treatment has stopped vomiting when every other means failed which I had tried. It will at least give the ipecac and podophyllin which I use in very small doses with the indicated sedative, a chance to act.

Withhold all food for twenty-four hours or longer. Don't be in a hurry to feed. If vomiting has stopped, plenty of water may be given.

In all these cases, no matter what the disease may be, let your first nourishment be malted milk, cream and hot water, mutton broth or chicken broth, and nothing else. A little brandy may be

given as the temperature subsides; add to the list slowly the first few days, first milk, then cream toast, gruels strained and raw or soft-boiled eggs. Powdered lactopeptine or ingluvin will aid the digestion. Give in small doses three times daily.

If the temperature is accompanied by nervous irritation, shown by sleeplessness, muscular twitching, or threatened convulsions, whether caused by acidity of the intestinal tract or worms, try nat. phos. 3x. three grains every three to four hours, dissolved in hot water, or santonin one-sixth grain, every three to four hours, for several doses.

If from teething give passiflora in full doses or small doses of bromide of soda, or hyoscyamus. It is surprising how the addition of the proper nerve sedative will secure rest and reduce a temperature which has resisted other treatment.

If you have a condition of congestion, as shown by the patient being dull, with dilated pupils, pale skin, cold feet, the pulse may not suggest a very high temperature and you are surprised when you look at your thermometer to find it so high. Let your aim be to equalize the circulation to bring some of that heat to the surface.

SPECIFICS IN THE TREATMENT OF CHILDREN'S DISEASES.

J. D. MC CANN, M. D., MONTICELLO, INDIANA.

The doctor that attempts to treat sick children and knows nothing of the virtues of specific medicine, is to be pitied. It would be better, however, to give the larger share of your sympathy to the child.

The average child does not take kindly to medicine and when nauseous doses are forced into an already nauseated stomach, which would reject the most daintily-prepared food, the call for a pleasant medicine is most urgent.

We are to be congratulated that we live in an age when we do not need to resort to powdered scorpions and the lancet to cure the ills of our little ones. As an exact science we can not say that our medicines have reached their culmination, but with many symptoms met with in children, it does not require the specific medicationist very long to solve with mathematical nicety the therapeutic remedy which will absolve that child from its difficulty.

It is this scientific fitting of the remedy to the disease that makes us feel that by and by the much-desired goal will be reached.

The pleasant and accurate remedy for the ills of childhood is daily seeking at our hands a solution. In the fever of childhood we naturally turn to aconite—fever being a despoiler of nervous equilibrium. We would look for another remedy to serve us as a balance wheel, and we reach for our bottle of gelsemium.

Therefore the combination: Aconite, three to five drops; gelsemium, eight to fifteen drops; water, four ounces, and we have a medicine both pleasant and effective.

I have one little patient which, if she becomes feverish, the secretion of urine suspends action, the remedy for her, then, is apis and equisetum—ten drops of the former to twenty of the latter, in three ounces of water.

The single remedy of either will not do the work of the combination, in this individual patient.

Belladonna, while an excellent remedy when properly indicated, often causes such redness of the skin that the anxious mother becomes alarmed for fear that a new malady has attacked the little one, and this probable condition should be explained when the remedy is given.

The Creator must have had in mind the yellow baby when he caused to grow on this generously productive earth, the chionanthus. Mothers are too proud of their little ones to want the unsightly color to last long, so we give a few drops of chionanthus in one-third of a glass of water, a half teaspoonful every two hours, and the result is happier than the effect produced by a whole pint of saffron tea.

Did you ever see the anxious mother scurrying here and there in quest of that delicious old-time remedy, catnip? It may be that the snows of winter have covered the herb and the stock in the attic is exhausted, and the mother bewails the fate of the little one. Soothe the baby and the mother by a very small dose of cannabis indica administered at frequent intervals to the little one, and all is well.

Pulsatilla, jaborandi and asclepias have been my remedies in one of the greatest epidemics of measles our community has ever experienced.

When there is cold on the lungs and each cell seems to be a special seat of inflammation, asclepsias is the remedy, but no more the remedy than euphrasia, when the cold is in the head, and the

annoying snuffle predominates. With some children quinine proves to be incompatible with their make-up, in such case bryonia and gelsemium act nicely as an antiperiodic, and causes no unpleasant results.

Iris and phytolacca, for glandular and skin trouble, are fruitful remedies, and worthy of attention with scrofulous children. Colic is one of those troubles that causes the mother to sing her lullaby without avail, causes the father to say or think unpleasant things and demoralizes sleep for the whole family. A precious remedy to think about in this case is the old neutralizing cordial with colocynth or dioscorea. Give the small dose, but repeat it often.

In enuresis we possibly think of thuja, belladonna or nux. Should there be an excess of gas on the stomach, xanthoxylin would no doubt be the remedy to make the little one comfortable. In convulsion we naturally think of gelsemium, passiflora and avena; possibly a free emesis by lobelia to empty the stomach would be a charitable act.

Without prolonging this paper to the point of weariness I would urge you to select well your remedies to fit the case at issue. Keep a case-book in which you note symptoms, remedy and result, and in a year from now you could produce a book that would be beyond price.

We should realize that much of our practice is among children, that the parent's love is strong for the little ones and the doctor that can treat the children successfully is a mighty man in his community and he only raises to his full stature as a benefactor when he can make a good diagnosis and a good prognosis because of his knowledge of specific medicine.

NERVOUS REFLEXES IN CHILDREN.

GEO. M. HITE, M. D., NASHVILLE, TENNESSEE.

The nervous tissue of children, being of immature development, renders them liable to the many reflex troubles incidental to their tender age.

The spinal nervous system is the center of reflex action, the cause of which may be either intrinsic or extrinsic, that is to say, central or peripheral, originating in the spinal cord itself, or transmitted from the periphera through the sympathetic nervous

system, which presides over the functions of vegetative life. The nerves of reflexion are the afferent and efferent, constituting, as it were, an electric circuit of considerable destruction when the battery is charged and the current turned on by some, seeming insignificant, local irritation, a few of which I will mention.

The physiological function of teething, as an extrinsic cause, is often attended with distressing nervous symptoms, not infrequently resulting in some spinal or brain complication which may culminate in spasms and death. Hence, the importance of seeing to it that the infant has the proper nourishment prior to, and through its dentition period, avoiding food inadapted to its age and physiological requirements. The mother should eat simple and plain food of easy digestion, in order that her babe may be furnished the necessary amount of food of proper quality. In fact, if the child be regarded as at all rachitic, the mother should be given some one of the hypophosphite compounds in order that her child may pass through dentition in a physiological way.

We will mention the sites of local reflexes as we pass from above downward; the next being gastric in origin, and extrinsic in locality. If the child be capable of ingesting food at all, it may have been given some coarse, indigestible food, which may set up gastric irritability and reflex spinal irritation, ending in spasms of most distressing nature, hard to control, as I have witnessed a number of times in my professional experience. A case in point being a child eighteen months old, who was convalescing from a very mild case of measles, being allowed to walk about in the room, was given a bit of cheese which it swallowed, and in about thirty minutes was seized with a most violent attack of spasms, tetanic in severity, and most difficult to relieve.

I will next mention the intestinal tract as a frequent site of local irritation resulting often in spasms; and I will state the most frequent causes as being the ascaris lumbricoids, whose habitat is the small intestine, the oxyuris vermicularis or rectal worm, impaction from eating green apples or other coarse ingesta, and sometimes acute constipation, which will irritate the rectal nerves, produce capillary congestion through irritation of the sympathetic nervous system, high fever and convulsions, if not relieved immediately. A case, illustrating the last thought, I will mention. My own child, ten months old, about three weeks ago became very feverish, restless and nervous about ten o'clock at night, so much so that I became very solicitous, and among the questions

I asked my wife was, when its bowels had acted, and she said three or four days ago. Believing I had found the key to the situation, we proceeded to give an enema of a pint of normal salt solution, the result justifying our conclusion as to the cause of the trouble, for no sooner had the bowels moved than the child fell into a quiet, peaceful sleep, began to perspire, the fever was soon gone, and the next day my child was as playful and as well as ever.

Another fruitful source of serious reflex trouble is the umbilicus of the new-born babe. How many of us have had our surprising experiences just here: A fine, well-developed child has been brought forth in sorrow, it is true, but now the fond mother rejoices because a man-child has been born into the world, and all interested eyes are hopefully looking to its future, when from the third to the twelfth day, suddenly, the child begins to have spasms. On examination we find a tonic spasmodic condition of the muscles, which become clonic on the slightest disturbance, there being opisthotonus, difficult deglutition, etc. From further examination we find that the umbilicus, having been dressed with a greasy cloth, has been a little troublesome all along, having been a little irritable, purulent and offensive. We have now found the key to the etiology of the case, it being, no doubt, infected tetanus neonatorum. Death supervenes in from a few hours to a few days. Hence the importance of using an aseptic dry dressing of absorbent cotton dusted with equal parts of boracic acid and subnitrate of bismuth with two grains of asepsin to the ounce. We often have a state of tetany superinduced by an irritated condition of the gastro-intestinal tract.

Phymosis is a source of a number of reflex nerve troubles unfortunate by being often overlooked by the general practitioner. The prepuce is unnaturally elongated and contracted, the aperture being pinhole in size, impeding the act of urination, causing an accumulation of smegma, irritation, balanitis, urethritis, cystitis, the consequent tenesmus during the act of urination, sometimes producing hernia, prolapsus ani, hydrocele and hemorrhoids. Our duty in this case is to overcome the abnormal contraction of the foreskin by manipulation or some form of circumcision; doubtless circumcision being the most feasible manner of correcting the stenotic condition.

Adhesion of the prepuce to the glans penis causes a chain of reflex morbid phenomena very serious in character, and often

quite intractable because of the obscurity of the cause. Hence, the necessity of the practitioner being on the alert, relieving his patient and adding laurels to his professional reputation.

Among the reflexes that may arise from this form of atresia are priapism, which may ultimately lead to manipulating the organ, and masturbation when the child grows older; insomnia, night terrors, frequent urination, incontinence of urine, chorea, epilepsy, convulsions and paraplegia. A case in point under present observation and treatment, being a child now ten months old who, when he was just a few days old, began to manifest nervous symptoms of light spasms, sudden starting, finally spasms almost continually, being attended with great soreness of the entire body, caused, no doubt, by the clonic character of the spasms. Medication in this case was only partially palliative, even after long trial, and one day, just when we all had despaired of being able to cure the case, its father, who is a physician, said to me, "Do you know this 'kid' can 'pee' across this room?" This information was the beginning of the end, for this symptom was the insignia of the real nature of the case. As you may know, we found a pin-hole aperture in the prepuce, which also was adhered to the entire gland. We at once performed circumcision and broke up the adhesion, and improvement set in at once, and the patient is now almost well, it requiring some time to restore tone to the disorganized nervous system. An adherent hooded clitoris may be the cause of a number of reflex troubles, among them being nervous irritability, nervous atrophy, enuresis, manipulation of the parts and non development of the child.

The redundancy should be exercised, the adhesion broken up, the patient given nervines and constitutional restoratives as indicated.

The simple accumulation of smegma is often responsible for not a few very unpleasant reflex symptoms, such as an intolerable formication and itching, masturbation and consequent nondevelopment of the child, balanitis, etc. Hence the necessity of strict cleanliness along this line, together with moral persuasion, which are usually all that is required, unless an elongated and contracted prepuce be responsible for the accumulation, when circumcision should be resorted to for ultimate cure.

In my own family, in a female child, an irritable urethra was the cause of the most obstinate and incontrollable incontinence of urine it has ever been my misfortune to treat. With all the medi-

cation and hygienic measures that could possibly be brought to bear in the case for seven years, nothing was of the least avail. In the din of my desperation it was sounded in my ears and mind to produce dilatation of the urethra by means of a steel sound. This I did by making use of the American steel sound number fifteen, allow it to remain in situ, for about ten minutes. The result was magical, as there was only one or two more involuntary emissions of urine, the one operation being sufficient to effect a cure of a case that has lasted already several years.

DISCUSSION.

DR. BAKER (Michigan): I have been very much pleased with this paper, and I endorse what is said of the rectal treatment of such cases. I have called attention to this before. Of course, if there is an organic trouble and the child has convulsions, there is nothing but temporary relief. I had a case recently of a child about two years old, sitting eating. All at once the head dropped and it went into convulsions. I said I feared there was injury to the brain. It was a very precocious child and had always been healthy. Enemas per rectum relieved the child, but they went on until the child died, and the postmortem revealed tuberculosis of the brain. I always at once resort to medication per rectum rather than by the hypodermic. I use enemas of lobelia, and lately I have used bromide of potassium; but if the nervous system is in a tremulous condition, I use apocynum.

DR. MUNN: I have found the chief difficulty in convulsions in children from over feeding, or wrong feeding. I find the trouble in the stomach usually. A great many die from overfeeding. The baby cries, it must be hungry, and they put it to the breast or bottle. There is a chance for convulsions unless the stomach is evacuated. I generally take care of the stomach, and the best thing is a neutralizing mixture. A good many come to my office to get the remedy prepared from Dr. Beech's formula. I always keep it on hand.

DR. PERCE: I agree with Dr. Munn in the main, yet there are a great many other conditions we must not forget. There are three conditions under which a child will cry—pain, hunger and pure cussedness. Generally it is the latter. It is necessary for a child to cry a portion of every day. The trouble in convulsions is not always with the digestive tract. We must

remember that often it is a congenital condition. Either its parents or their parents are to blame. It is always well to anticipate convulsions in an irritable child. It is true the intestinal tract is often over-pushed and abused in childhood as in adults; but where no phimosis is apparent and the mother is careful of the feeding of the infant, and the child's welfare is well looked after, we must look elsewhere for the cause, and when we do find this, it is necessary for us to consider carefully what we may say to that parent as to the possibility of the child's outgrowing that condition, because often the child becomes dull in intellect, instead of developing into manhood or womanhood as they grow older, they retrograde, as it were, and become a charge on the community if the parents are not able to take care of them.

DR. HENDERSON: There is another condition of which I had a recent experience, and the reflex imitation began in the mother. I do not believe this was mentioned in the paper. The condition of convulsions in the child was, I felt absolutely sure, produced by the frequent use of headache powders during gestation. It seemed as though the child's nervous system was absolutely exhausted. When about seven weeks old the convulsions began. I looked to the digestive canal as the possible source and obtained a negative result, and was forced to the conclusion, after getting a history of the mother of the course through which she had passed, that the convulsions were produced by the use of headache powders during the period of gestation, the composition of which I do not know, neither did she. Dr. Perce said he liked to hear a baby cry; it was often the proper thing. I am inclined to differ from that.

DR. WHITFORD: If a baby has spasms, the main thing is to stop them. It makes no odds what is the cause. Now, if we have a remedy that is harmless in its effects we should use it, and I want to recommend from three to four drops of lobelia in hot water every five minutes until the fit stops, and it will stop with this remedy every time.

DR. WILMETH: I have heard nothing said of convulsions from hereditary diseases. These things should be watched carefully, and we should not attribute to intestinal irritation the trouble that is directly traceable to heredity. Cases of epilepsy begin at different times. These require different treatment as well as different diagnosis and prognosis than would be given in irritation of the intestinal tract.

BABIES' RIGHTS AND WRONGS.

HARRIET C. HINDS, M. D., EAST ORANGE, NEW JERSEY.

During the present surgical regime, when to be a successful operator in the field of surgery is to win laurels, and honored name, a large clientele and a heavy bank account, the children will not be likely to escape attention. It is such a temptation to find a necessity for an operation; to do something which no other has done, and withal to save the patient's life occasionally. Or to prove that an operation has been successful, and a fatal result was caused by some other existing condition. The glory is reflected all the same in either case upon the daring, cool-headed surgeon. All this is decidedly hard upon the poor victims, who may have consented to endure the torture in the hope of future relief. In the case of adults, they have submitted with their eyes open, and it is something to some classes of people to be able to tell later of their emergence from a critical operation by the celebrated Dr. ——.

But for the little ones, let us say "Hands off." Give them a chance to enter upon life with as sound a body as they possess at their birth.

In the treatment of stomachic and intestinal disorders, babies are frequently subjected to stomach lavage proceeding from long rectal tubes, etc., when milder and more successful treatment could be used.

I recall the case of a little girl brought to my office at four years of age. The mother, on entering said, "You are the ninth doctor I have taken her to." The little tot had been persecuted with all kinds of local treatment for persistent constipation since her birth. The mother and child had led miserable lives these four years. Every night, once or twice, the child would suffer with paroxysms of pain in the abdomen, relief coming but slowly after ineffectual efforts through sedatives and enemas to sooth it. Without using any harsh treatment, in four months, she was entirely well. Flushing of the bowels and our own eclectic remedies did the work and now, four years after, she is a healthy little girl.

This is no remarkable case, and nothing more than any of our physicians could or would probably have done. But it is simply one of many cases where a child has been unnecessarily subjected to uncomfortable, disagreeable treatment.

While the appendicitis fad remains as now, the babies will be occasionally subjected to removal of the appendix. One author in writing of a number of cases, which came under his observation, says very candidly, "In eleven cases, the abdomen was opened, the pus and inflammatory products within reach of the incision removed, and an attempt made to wash out the whole abdominal cavity. None of these cases recovered so that this, which seems to be the most rational treatment, when the diagnosis of appendicular disease can be made with an approach to certainty, should only be adopted after the most careful consideration." Those of us who would have thought it unwise to operate, might have been surely as successful!

The suggestion has even been considered of removing the appendix from healthy babies in order to save them from any inflammation in that region in the future. There is probably no danger of this radical plan being adopted by any large class of physicians, but it shows the trend of thought towards uncalled-for operative procedures.

In an article on "the Cotton Famine," in a recent number of the valuable Red Cross Notes, the writer speaks of the present high price of cotton, and telling further of its possible continued rise in price, he says: "High-priced cotton is a menace to every hospital, to every surgeon. There will be a curtailment of operations, a possible check to surgical treatment, a staying of surgical progress." While this condition of affairs is to be deplored, "a curtailment of operations" might be a blessing, and a saving of life otherwise sacrificed.

Tonsillotomy is often unnecessarily performed. True, this is a minor operation, and some physicians believe their removal to be a wise procedure, even when not hypertrophied or diseased.

We, students of medicine, have yet much to learn. While we do know a little, we have not yet learned the uses of all the appendages of the human frame. But because we have not yet ascertained any special uses for certain glands, for instance, this fact by no means, proves that they have no value or necessity in the human economy.

It is not probable or possible that this wonderful body of ours with its intricate belongings, has any useless appendages, or one portion which, if removed, will permit of as perfect conditions for existence as an unmutilated one.

Without further development of thought on this prolific

subject, I still repeat, give the babies every chance for life and wherever possible a perfect, unmutilated body. They will meet enough of pain and suffering as they grow out of childhood, through heredity, environment, false teachings and self-indulgence without any infliction from those who profess to heal.

THE INDICATED REMEDY.

J. S. NIEDERKORN, M. D., VERSAILLES, OHIO.

The one remedy not indicated when we come to consider the treatment of a restless, sick child, is opium or any one of its derivatives. And by declaring myself in this manner I particularly mean that to indiscriminately exhibit a so-called opiate in every case where it is desirable to overcome extreme restlessness, is a practice deserving rigorous reproof.

Any physician who practices such method not only displays gross carelessness and want of thorough acquaintance with practical therapeutics, but also is not deserving of his patient's respect and confidence.

There can be no question about the untold harm which necessarily follows such erroneous and unjustifiable practice; harm which may not only be transitory, but irreparable; harm which openly cries out its significance, and harm which oftentimes calls forth wrath and is heaped upon him who was the direct instigator of it.

In treating children there are even more reasons why we should exercise the greatest precaution in the selection of our remedies, and to any thinking man these reasons certainly are self-evident. Not every sick child is restless, but where restlessness is a prominent feature during the illness of any child, there certainly is a reason for that unpleasant condition; it behooves the careful physician to ascertain its cause—in fact, it is his imperative duty to diligently determine just what is causing this nervous manifestation. Sometimes much difficulty is experienced to determine this, but that does not in the least do away with the fact that there is a cause. Pain is the most common cause—locate that pain and ascertain its cause; the definite remedy is within easy reach, and but very seldom need that remedy be opium.

Fever, teething, gastric or intestinal uneasiness, hunger, thirst, nervous irritability, all are common causes and probably are the most frequent met. If an increased temperature is the cause, the indicated sedative and frequent baths will prove efficient. Passiflora, gelsemium, rhus,, hyoscyamus, scutellaria, or pulsatilla, each one selected according to its well known indications will palliate unrest due to teething. And the same remedies may also be considered when it is desirable to overcome nervous irritabilty. Abdominal disorders may need ipecac. nux vomica, amygdalus, neutralizing cordial, colocynth, natrum phos., nepeta, matricaria, mild cathartics or others, but they should not be prescribed haphazardly, and successful results expected; failure will follow their administration unless they are given with due reference to their particular affinity to certain pathological conditions.

If it is certain that the trouble is due to foul accumulations within the intestines, nothing will do so well as a sweeping dose of castor oil. If there is gastric irritability, with vomiting, intestinal irritation and irritative diarrhea, contracted, pointed tongue, nux will not give the desired result. If there is much pallor about the face and mouth, tongue broad and pallid and pasty, nausea, colicky pains in the small intestines, ipecac will prove unavailing. And it would be well if we would decide whether we intend to administer matricaria or hyoscyamus, the conditions presented in the case before us being our guide.

Many physicians have cultivated the habit of administering a favorite combination of remedies to every case where nervous irritability, restlessness and sleeplessness are prominent features. The very fact that they do this is proof sufficient that they do not study their case; and the only reason they can advance why this practice is continued is their claim of having obtained fairly good results from its employment. It does seem that such method of prescribing is equally as bad and wrong as is the assertion that a certain remedy or combination of remedies is a specific for a certain named disease.

Experience will demonstrate that it is from this class of prescribers that we hear so much about the uncertainties of medicines, and that the practice of medicine, like marriage, is a failure and a pretense. Medicines are like everything else; to understand them, to know their physiologic and therapeutic action requires careful study; and to know when and how to administer

them in order to obtain definite results necessitates more than a mere cursory acquaintance with therapeutics.

Prescribing a remedy for a certain effect because of its physiological action will prove unsatisfactory; its therapeutical effect many times proves to be something else, and that is the effect we want. The nervous, restless, sick little fellow is deserving as much of our attention as is the hysterical adult and even more so. Who wishes to be guilty of forever shattering an undeveloped nervous system by the careless, indiscriminate use of a dangerous drug?

THE "SCARLET THREAD" OF ECLECTICISM.

J. M. WELLS, M. D., VANCEBURG, KENTUCKY.

"And it came to pass in the time of her travail that behold! twins were in her womb. And it came to pass, when she travailed, that the one put out his hand, and the midwife took and bound upon his hand a scarlet thread, saying, this came out first. And it came pass, as he drew back his hand, that, behold, his brother came out; and she said, How hast thou broken forth? this breach be upon thee; therefore his name was called Pharez. And afterward came out his brother, that had the scarlet thread upon his hand; and his name was called Zarah."—Genesis XXXVIII: 27-30.

If we would imitate the Great Creator of all things, we should begin at the beginning. Pediatrics should begin at the the birth or even before the birth of the child, for all animate creation, infants at birth the most helpless, and require attention from the first moments of their existence, not that we believe they should be medicated from the start with all the abominable things that old women, and some doctors are disposed to give them, but to avoid disaster and disease should be let alone so far as medication is concerned. But the infant will be doped and dosed to the end of the ages, and then comes disturbance of the digestive organs, and other ailments, one of the first of which is most likely to be colic, and one should be able to recognize it by the screams, the bloated abdomen and drawing up of the knees; it is usually of the spasmodic kind and the remedy will be one or two drops of specific lobelia to a half glass

of water, ten to fifteen drops of the solution every ten to fifteen minutes, till relief is obtained, then clear the bowels out with olive oil, castor oil, or neutralizing cordial. And here we tie the first "Scarlet thread of Eclecticism," for lobelia is specific to this condition, and in conformity to the old custom of tying a scarlet thread around the finger to aid the memory, or like the old midwife, to be sure we are right, we place the "scarlet thread."

A babe passing its second summer (baby P———) was attacked with acute muco-enteritis—case of Mrs. Dr. L———. The writer was called the third day of the attack. Temperature 103, pulse and respiration rapid, abdomen distended and tumid, stools consisted almost entirely of mucus, knees drawn up, child screaming with pain.

We were shown the medicine and found it to be calomel and powdered opium, a small powder to be given every two hours. One would think this would quiet pain, at least, but not so in this case. Our prescription was specific lobelia, drops 5; water oz. 4. Mix and give a teaspoonful every ten minutes. Result, easy and asleep in thirty minutes. We then ordered a warm bath, to last fifteen minutes and to be repeated every twelve hours. Alternated the above with specific ipecac, specific aconite aa, drops 5, water oz. 4; mix; a teaspoonful every two hours. We had no more crying spells, and a few days of this treatment closed the case on the safe side.

Baby K——— carried out in the sun in midsummer for an hour, returned and placed between the doors, where she cooled off very rapidly. During the following night she was taken with an extremely high fever, followed by dysenteric stools and great pain (entero-colitis). For three days a line of treatment was pursued in conformity to specific medication as we saw it, without benefit. At this time the child was in the restless state which betokens a speedy dissolution unless checked; rolling the head from side to side, high fever, manifestations of pain and specks floating on the cornea, almost a sure token of death.

We were recalled at 3 p. m., made a solution of chloral hydrate in a small saucer of water, added sugar to sweeten and gave a few drops every ten minutes, till sleep was induced, to be sure to get the full effect of the drug; the child was aroused a few times and the drug given and instructions left to so give the medicine every time the child wakened, till it slept.

The next morning the temperature was 99½, and the case

well on the road to recovery, so much so that one four-ounce mixture of ipecac and aconite in water completed the cure.

A case of spinal meningitis in a girl eight years old, the first symptoms were disposition to act silly, laughing when asked a question and other incoherent acts. After three or four days the temperature was found to be 99½° F., which slowly rose from day to day, reaching 102 about the tenth day, at which time convulsions supervened, and the patient passed into a spastic condition. There was rigidity of all muscles, complete opisthotonus, risus sardonicus, gaping mouth, eyes fixed, pupils slightly dilated. If an arm was lifted it would remain awhile, then slowly regain a normal position, cateleptic in a degree. Passiflora was tested in this case to the extent of a six-ounce bottle, and since that time we have not used any. It failed to in any degree accomplish the purpose for which it was given, and was abandoned. The patient was then given chloral hydrate in a solution of syrup and water, tentatively, pushing it till the spasm was relaxed.

The statement that "in a multitude of council there is wisdom" proved to be foolishness in this case as touching the prognosis. Four out of the five physicians who saw the case prognosticated death, the writer contending that she would recover, but would probably have no recollection of the past, and this even proved untrue, the first act after recovery being to repair to a doll graveyard and exume her dolls, remembering their names. All agreed as to spinal meningitis. Dr. G——— prescribed a mixture of chloral and bromide of potash, which was tried three days, but would not control the spasms, and she was again placed on the chloral mixture and continued on it till recovery (six weeks). The only aids to the medicine were cold water to the head and a milk diet. And here again we tie the "scarlet thread," for should we meet a like case we would rely wholly on the administration of chloral hydrate.

It is true that the chloral and bromide mixture if pushed would control the spasm, but the disturbance of the stomach from the potash is great, and chloral disturbs but little, if any. We are always careful to keep the patient in a recumbent position when giving chloral hydrate.

We sometimes meet with cases in which the diagnosis can not be made clear, and here is the place for specific medication in particular, for if we can determine upon a specific for one remedy we may accomplish all that is needed. We recall one

such case in which all that could be noted was a temperature of 103 degrees and great restlessness, so that the patient, a girl of twelve years, had to be restrained in bed. After three or four days of doing the best that we knew, council was called and prescribed morphia in the usual dose, which was given for twenty-four hours without any benefit. The writer then gave specific gelsemium in five-drop doses every fifteen minutes till sleep was induced, six doses in all (thirty drops); the patient slept thirty-six hours and awoke free from fever, free from nervous irritation, refreshed and in a manner well. Here tie a scarlet thread and do not be afraid to give gelsemium in large doses in all such cases, but push it to effect, and let us continue to tie the scarlet thread of eclecticism on all certainties in the future, as we have in the past, for certainty is one of the distinctive features of eclecticism.

SCARLATINA.

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This is a disease of childhood rarely found after the age of twenty. In some seasons it becomes epidemic on account of the intensity of the poisoned atmosphere and also the condition of the air to favor the propagation of a zymotic disease. According to the severity of the symptoms and the fatality it is divided into three forms: Scarlatina simplex, scarlatina anginosa and scarlatina maligna.

In the simplex form six to eight days after exposure the disease is ushered in with a slight chill of short duration, followed by moderate fever, arrest of secretions, etc. The eruption appears in from eight to twenty-four hours. The throat sufficiently sore to cause difficult deglutition only. Within one to two days after the appearance of the eruption the fever rapidly abates and within three to five days the brawny desquamation of the cuticle follows.

In scarlatina anginosa there is usually a marked chill with pain in the head and back, thirst and nausea and vomiting. The skin is hot, dry and husky and the fever intense. The bowels are constipated. There is high-colored, frequently-voided, scanty urine and marked irritability of the nervous system. The sore throat with difficult deglutition is present from the first. The

fauces are red and tumid, tonsils swollen. The nares are frequently implicated, causing stuffing of the nose and difficult respiration, increasing the restlessness. The eruption appears within from one to three days after the chill. When fully developed it presents the rose-red base with the minute red points so characteristic of this disease.

During the eruption the burning and stinging of the surface of the body and soreness of the throat keep the child in a sleepless, restless condition, with an expression of suffering and anxiety on the face. The sore throat is the most prominent feature. The soreness increases and the mucous membrane and subjacent tissue are tumid and engorged. The saliva becomes viscid and tenacious. Ulceration usually begins the fifth or sixth day and the offensive secretion is removed with difficulty. Frequently there is enlargement of the cervical lymphatic glands, which will terminate in inflammation and suppuration unless properly and promptly treated.

Scarlatina maligna has two forms of development. In the one case from the first there is marked evidence of prostration. The child is dull and stupid, with a vacant countenance, and the chill is greatly prolonged. Fever developes slowly. The body becomes very hot, but the extremities are cold. The pulse is frequent but soft. Sometimes there is nausea and vomiting, sometimes diarrhea. The tongue is broad and coated with a foul, dirty mucus, and the patient has difficulty in controlling its movements. The eruption appears slowly with dusky redness. The throat appears the same as in the anginosa form, only more severe. Deglutition and respiration are very difficult. The ulceration produces a foul surface with ragged edges, with a strong tendency to phagedena. The enlarged cervical lymphatic glands have a strong tendency to the formation of diffusive abscesses, and if the patient lives, to the formation of secondary abscesses. The symptoms are of a typhoid character as the disease progresses. There is feeble pulse, dark tongue, sordes on teeth, great oppression of the nervous system, with a tendency to tympanites, diarrhea and coma.

In the second case there are no premonitory symptoms. The chill comes on suddenly and is of short duration, succeeded by the most intense febrile reaction. All symptoms except the chill are very marked. The skin is intensely dry and hot; the mouth is dry and parched; the eyes are dry and brilliant; there is nausea.

vomiting and extreme delirium, which speak well for a fatal issue. The patient is frequently exhausted before the appearance of the eruption or while nature is trying to produce it. In these cases we observe a want of power upon the part of the system to bring the eruption to the surface. And in this review of scarlatina here is a point of great emphasis. In such cases prompt measures must be taken to bring the eruption to the surface or the patient will die.

The temperature in the simplex form is moderate, but in the anginosa form it runs the highest of any disease with which we meet, reaching at rare times the very extreme height of 108° or 110° F. In the maligna form the temperature is not so extremely high at any time, but runs uniformly at 104° or 105° F. for a week or more, which, as in typhoid and other fevers, is always a dangerous feature.

Scarlet fever is diagnosed from other diseases of the skin by the rose-colored base, upon which are the many small red points. The redness is effaced by pressure and returns quite slowly.

In the simplex and anginosa form of the disease the prognosis is usually favorable. In the maligna form, if the eruption becomes dusky or if coma or typhomania ensue, the prognosis is always unfavorable.

Albuminuria and chronic inflammation and lack of power to secrete are the frequent kidney affections. The lymphatic glands sometimes become enlarged and irritable, with the continued soreness of the throat; chronic diseases of the ears, with purulent discharge and partial deafness, frequently follow.

In no other disease is prompt and proper treatment more greatly needed. Early we must assist nature in bringing the eruption to the surface. The secretions must be kept free with depurants. The kidneys must be assisted with acetate of potash. Fever is gradually controlled by veratrum or aconite as the pulse requires, to which is added gelsemium or belladonna or other indicated remedy. For the throat the vinegar pack is an excellent external remedy. It should be applied continuously. An inhalation of the vapor of equal parts of vinegar and water or an infusion of hops gives great relief. In the enlargement of the lymphatic glands specific phytolacca is used. In the severe cases the anginosa and maligna forms, where the throat presents the

extreme tumid appearance, frequently repeated doses of specific echafolta give great satisfaction. It is also used locally as a wash for the ulcers. A close watch of the specific indications will suggest other remedies which will be found direct, positive and satisfactory in their action.

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PUS FORMATION—THE SUPPURATIVE PROCESS.

E. YOUNKIN, M. D., VILLA RIDGE, MISSOURI.

Suppuration is the formation of purulent matter from the orifices of the blood vessels and the fluid so produced is called pus. The material products of inflammation are lymph, mucus, serum, blood, and pus. It is a singular fact that all these products are natural constituents of the body, save that of purulent matter. Lymph, mucus, serum and blood are simply called to an inflamed part, but not manufactured by the inflammatory process, but pus cannot be called a constituent of the body in any sense. Neither does it go to make up any tissue of the body nor in any way enter into the normal manufacture. Purulent matter is not, as it was formerly supposed to be, a fluid formed by the dissolution of solids. The old theories relative to inflammation and the production of purulency are now virtually abandoned. It has been held that inflammation was necessary to healing by promoting either adhesion to unite by "first intention" or suppuration to repair by granulation; hence the older authorities place great stress upon the so-called healthy inflammation and healthy or laudable pus.

It is true that the physician and surgeon combats inflammation having a knowelge of its destructive influence; it is treated as a diseased condition until it is brought under control, at which time it is called a healthy inflammation, and suppuration was divided so that one of its conditions was denominated healthy pus. It has always seemed to me that it was confusing to a medical student to treat inflammation and purulent formation as disease and then talk of healthy inflammation and healthy pus. It is simply a contradiction of terms to speak of a healthy disease. The modern theory is that inflammation is a complication, an unnecessary appendage, that adhesion is not dependent upon the inflammatory process and that granulation can proceed without the suppurative process. While it is probable that pus may be produced by mechanical or chemical action for all practical purposes, the surgeon considers suppuration as the result of invasion by pathogenic organisms.

This theory has wrought an entire change in surgical teaching, progress and practice, and has turned the whole surgical world away from the older theories relating to the reparative processes of the human body. Hence there are no such things now as healthy inflammation and healthy pus. They are only grades of conditions and are not regarded as even stations of pause in surgical practice. In other words the surgeon of today now seeks and prefers to heal without inflammation and without the suppurative process of any kind.

Suppuration is regarded as a battle in which the armies of leucocytes on the defensive side are seeking to destroy the invading foe of bacteria on the other side, and it becomes the duty of the surgeon to prevent the possible battle by intercepting the entrance of micro-organisms, or the micro-organisms once having gained an entrance into the parts, it becomes our duty to aid in destroying the bacteria and reinforce the leucocytes by such means as will give the greater strength and activity. It is maintained that when this battle is fairly won; when the parts are thoroughly protected; when no micro-organisms exist, there will be no such thing as suppuration nor inflammation except simply the condition of ferment fever, the resultant of tissue or cell injury. Here of course lies the surgical problem,—how to kill the microbe and at the same time save the leucocyte. We know that suppuration is a process of inflammation and that it is not always a bad omen—in the so-called healthy character the signs

of recovery become favorable. We were formerly satisfied when we were able to keep the discharge in this so-called healthy state, meaning by this that the pus was to be of a creamy-like consistency, of proper color, and non-irritating; but the ideal healthy wound of the modern surgeon, the ideal healthy ulcer and the ideal healthy discharge differs materially now from those of the elder surgical authors.

It has been contended that laudable pus shielded a part, but it is a well-known fact that disintegration of the discharge can quickly take place and that which seemingly protected may soon become a virulent poison. The leucocytes contending for their place, in a case of injury, surround the parts in perfect battalion. As the bacteria invade the parts they are seized and eaten up by the leucocytes. This is the process of phagocytosis. Many bacteria are destroyed, and on the other hand many leucocytes and embryonic cells are overcome and are dissolved by the peptonizing of the bacteria or the ptomaines, and with the serous effusion from the liquid in which the corpuscles float pus is the result. It originally is opaque, yellowish, white or greenish, of the consistency of cream, slightly acid at first, but quickly becomes alkaline from the formation of ammonia. Its specific gravity is usually about 103°. On standing it separates into serum and corpuscles. The serum contains a peptone, salts and water. The corpuscles consist of dead leucocytes and fixed proliferated tissue cells and fragments of disintegrating muscles.

With these facts before us we would conclude that the suppurative process has no place in surgery as the "surgeon's friend." That all wounds, attended with suppuration are infected; that it is the right thing to do in such cases to prevent suppuration by preventing the invasion of bacteria and to destroy bacteria by such therapeutic remedies as will be safe to the cells and tissues of the human body.

Having arrived at the conclusion that pus is the one and only material product of inflammation that is produced by foreign invasion upon the system, and that, too, by the pathogenic micro-organism, probably through a chemical action by ptomaines, it may be in place here to note that these micro-organisms are divided into two classes, viz., the *obligate* and the *facultative*.

1. The *obligate* micro-organisms, which produce pus under ordinary conditions, are the staphylococcus pyogenus aureus, albus and citerus, the streptococcus pyogenus and streptococcus

erysipelatus, the micrococcus lanceolatus and tetragones, the gonococcus, bacillus cobi, communis and pyocyaneus.

2. The *facultative* pyogenic germs belong to the class of disease-producing germs, producing pus very seldom and only under special conditions. These are principally the bacillus typhi, proteus, diptheritic, tetani, anthrax, glanders and tubercles.

Micro-organisms gain entrance to the system through the skin or mucous membrane; in the alimentary and respiratory tracts, through abrasions and open wounds. Entering the circulation they may be carried to any part of the body where conditions render favorable by injury or there is diminished vitality constitutionally or locally. The older authors speak of the utility of pus to keep granulations moist and thus enable the vessels to elongate, forming additions to granulations. They speak also of the power of pus to expel or eliminate extraneous matter as seen in abscesses.

There is no doubt that nature seeks these methods and that much good is accomplished by purulent discharges and when sores have long existed some caution is necessary in healing them. To suppress the suppurative process without removing the cause would prove disastrous to the patient. Nature under such conditions produces a quantity of blood equal to the discharge, and to check such discharges by simply suppressing them often leads to inflammation of some part or to apoplectic seizure. The surgeons of former times made issues or setons with this view, used strong cathartics and diuretics, but such practice is now very much discontinued because the antiseptic treatment has superseded. There is nothing in my opinion that can take the place of incision and thorough drainage where purulency has formed. The rule is in all cases, no matter where or in what part of the body pus has formed, it must be let out; it must be eliminated. Don't wait on the slow processes of nature to do this; the surgeon's knife is the source of relief. There is no such thing as therapeutic absorption or therapeutic neutralization, to take it back into the system to be eliminated through the lungs, kidneys, skin or bowels would be to liquefy it, render it a virulent poison and kill your patient by septicemia, empyema or some other disease. Therapeutic remedies are all well enough to sustain a patient during a suppurative siege, to tone up the system or some way add to the internal forces; therapeutic remedies locally in the nature of antiseptics or germicides and thorough

watchcare in the way of protective dressings and avoidance of exposures are the means to be employed in all suppurative stages.

DISCUSSION.

Dr. Wm. J. Krausi, Brooklyn, N. Y., remarked that it was a matter of indifference as to the cause of infection. The method of cure was paramount. The character of the food and the injestion of water was of value, more so in a higher sense than that of medicinal treatment. Hygienic care and dieting, with plenty of pure water, were the best agents for treatment. Laboratory tests have proven this beyond doubt and shown the necessity for the elimination of the exciting debris. Again, pure water and food are reconstructive agents and the best aids to natural recovery.

Dr. L. E. Russell approved Dr. Younkin's paper, relating especially to pus drainage. He advised free incision and curetting of the pyogenic membranes to clean out all poisonous matter. Hydrogen peroxide and sodium bicarbonate in proper solution were valuable agents to cleanse pyogenic infection and prevent absorption of new tissue. These combined, can be injected or the infected parts may be cleansed repeatedly and packed with carbolized gauze. Where we would scrape out and clean out nature responds at once with a vigorous appetite and improved condition. One point must not be forgotten; do not treat a patient for malarial condition when it is simply due to pus.

Dr. Church noted that tuberculosis was an ever-present danger, as cold abscess was a usual result, and not being a streptococcus invasion. He asked Dr. Younkin his opinion of the danger of this condition. Dr. Younkin said that Dr. Church's statement was the proper answer to the question.

Dr. Perce affirmed Dr. Younkin's statement and commended the paper. He called attention to absorption, saying it was not always the quantitv of pus present, but the amount absorbed that complicated the case and increased the danger, as it was often difficult to avoid the taking in of poison, even with the best of care. He approved the serum method of treatment, had found it of high value to counteract this process of absorption.

Dr. Herring stated that the old school had demonstrated the power of aseptic surgery and he approved the use of thorough bacteriological research to promote pathological knowledge in all pus cases.

CELLULITIS.

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Cellulitis denotes an inflammation of the cellular tissues. This may occur in any organ or part of the body, as the whole organized body may be regarded as a congeries of cells, having different endowments, each set being concerned in special acts, connected with absorption, nutrition and secretion, wherever an action of selection or elaboration has to be effected.

The cellular tissue unites every part of the body, determines its shape and facilitates the motion of the different parts upon each other by its elasticity and contractility and by the fluid which it contains in its areola texture.

Cellulitis may be primary or secondary and superficial or deep. The primary form is usually the result of exposure to cold or to some one of the infectious diseases, such as scarlatina or variola, while the secondary form may be consequent upon slight or severe injuries or the extension of inflammation from already affected parts, as of the periostium, bones or lymph glands.

The general signs and symptoms of cellulitis are pretty much the same in all parts. In the acute form there will usually be great pain, with redness and swelling; rigors and fever attend the onset of the attack and these are continued by the establishment of suppuration, or the formation of pus.

Cellulitis may terminate by resolution, causing only slight trouble and annoyance; but on the other hand, such cases become serious just in proportion as pus forms deeply and causes damage in the endeavor to evacuate itself. The presence of pus in these cases may be made out by both local and general signs. Of course fluctuation, when easily recognizable, will dispel all doubt.

On the other hand, cellulitis may be accompanied by such brawny muscular induration, or by such œdema of the affected parts as to mask the ordinary local signs of the presence of pus. In such cases, should symptoms of embarrassment of respiration or of extending deep pressure set up, or should chills or septic symptoms make their appearance, it will be wise to institute a careful search, even at considerable depth, for the suspected pus. This may be done with the exploring needle, and if pus be found it may be drawn off with the aspirator, or the trocar and canula may be used to drain the cavity and wash out the wound. I

remember some time ago having used this treatment with marked success in a case of deep-seated lumbar or psoas abscess in an old lady eighty-five years of age. The patient had been a great sufferer for quite a good while before I was called to see her, and she was so badly run down and physically debilitated from her suffering that her life was almost despaired of by both herself and friends. I first drained the abscess cavity of a pint or more of pus by means of the aspirator and then used the trocar and canula to effect further drainage and to wash out the wound. After washing out the cavity a few times in this way with carbolic acid and saline solutions and by leaving a good-sized drainage tube inserted to keep the wound open, the old lady made a speedy and satisfactory recovery and she was still alive when I last heard from her.

But as a general rule, in cases of deep-seated suppurative cellulitis, with the formation and burrowing of pus into any of the deeper structures or cavities of the body, it will be much more satisfactory and effective to make free incisions over the suspected area, being guided by anatomical knowledge, taking the precaution of dissecting with extreme care and avoiding all deep small punctures for fear of injury to displaced important blood vessels or nerves.

The patient may be anæsthetized to do this, and when the collection of pus has been reached the opening may be enlarged sufficiently to admit a finger by which the cavity may be explored, in order to ascertain whether a counter opening be necessary, and if so, to indicate the point where such may be made with the greatest safety.

Through these openings a drainage tube may be introduced to keep the cavity free from all accumulations of pus, or it may become necessary to lay the abscess wall open its entire extent to thoroughly cleanse the cavity of all dead or gangrenous matter, which may be done by curettement or otherwise, using antiseptic precautions in doing the operation, and if need be the parts may be thoroughly flushed from time to time with the required antiseptic solutions to keep down sepsis, and drainage is to be facilitated and kept up in the best possible manner, thus giving nature a better chance to effect a cure.

THE THERAPEUTIC ACTION OF REMEDIES IN THE TREATMENT OF CELLULITIS.

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To intelligently consider the medical treatment of this disease it will be necessary to take into consideration the condition that we expect to influence with remedies, and especially must the pathology in its various changes be noted that we may know approximately what to expect our remedies to accomplish.

Cellulitis is an acute or chronic localized or diffused inflammation of the cellular structure of a part and may involve the intermediate structure overlying. It may be traumatic primarily and become septic or not, or it may be septic, following a greater or less injury to the part, or be carried to a part by the circulation or lymphatics distant from the injury. It may be located superficially or deep, and this is important in the application of especially local treatment, as this greatly influences the progress of the disease.

The etiology is usually traumatic, of greater or less degree. Infection of the parts usually follow, such as injuries, wounds, contusions, scratches or punctures. The actual origin of inflammation is not certain, as it is attributed to circulatory influences by one and to vaso motor influences by others, or to infection solely by some. The law of chemotaxis must be explained. We must also know the influence of vaso motor changes in the vessels or the changes in the vaso motor centers of the vessel walls; also what causes the increased permeability of the vessel wall and why the reactionary proliferation of cells in the inflamed area occurs. This is a very unsatisfactory subject to exactly define. The greatest influence that can be exerted on an inflamed area is exercised on the circulatory changes, the nervous mechanism and fluids of the part previous to the formation of pus. In the different steps of a forming inflammation of whatever character or form, trauma or sepsis or both, there is increased rapidity of the flow of blood, the blood current is accelerated, the white blood corpuscles gather to the sides of the current, the vessel becomes dilated and the capillaries become small vessels. The current then becomes slower, the leucocytes migrate through the vessel wall, the serum exudes and the surrounding connective tissue spaces are filled with the exudate and proliferated cells of

the part which is increased over the normal amount. If the causative factor continues operative this condition continues, the parts become so congested that circulation is not more possible because of the pressure exerted and as a result of this, tissue necrosis occurs. This is the course of an inflammation in which the cause continues active and is not checked by the use and application of remedies. When the injury to the tissue is not so great or infection is not so powerful or virulent the vitality of the part may be sufficient to restore the injured or destroyed part. In other words, phagocytosis is successful with the assistance of remedial agents. Otherwise the service of the surgeon will be required to open an exit for the pus which will be formed quickly or in the course of time if chronic. These are the conditions which symptomatology indicates and which we are expected to influence beneficially by the administration and application of remedies. The remedies that will influence function by influencing enervation and circulation will be curative in that they will lessen excitement and delay the formation of induration and swelling until the phagocytic action may be accomplished.

The direct sedatives are usually indicated, but circulatory stimulants, such as belladonna, will usually accomplish this result. Internal antiseptics will be indicated for the very apparent reason that if infection is not primary such a disturbed condition of the secretions as is found in cellulitis will occur and will very quickly become general if not combated early. The remedies that influence function by correcting irregularities or inaction of the emunctories will also be curative. Those remedies that are stringent as well as tonics without disarranging the secretions will also be indicated in the late stage of the disease.

The list of remedies is too large to enter into the discussion of each one, but they are many and reliable ones, as is attested by the many recoveries that have taken place. We have all seen marked results speedily follow the administration of the indicated remedy and can properly estimate their value. We will mention some that you all know are not all indicated in any one case, but when specific indications are closely watched and correctly interpreted there are no remedies here given but what will prove beneficial. The direct sedatives exert a specific influence on the disease by opposing the rapidity of the circulation and preventing to a degree the relaxation caused by overstimulation in those cases of active congestion and general exaltation of arterial action. Of

these are aconite, veratrum, belladonna, bryonia, gelsemium and jaborandi to correct the condition of the skin. Kali mur and hamamelis in chronic cellulitis, boric and phenique acid in the acute form, glycerine in both acute and chronic forms for the purpose of assisting in dehydrating the affected part when it is adjacent to the surface where local applications may be made.

Magnesium sulphate is another agent used in a way similar to pulsatilla when the disease involves the ovarian and pelvic region. It stimulates the nervous mechanism of the part and brings about a better circulation.

Salicylic acid is a local antiseptic and is very efficient at times. Bryonia has been mentioned. Echinacea is indicated in septic conditions for its stimulating effect. Tannic acid is a local astringent that will tone up the parts in œdema following passive congestion and assist the power of nature to repair. Tincture of iron has cured many of these cases alone, those that required the H Cl. Without doubt the system was invaded by infection because of the want of a better digestion and better food for the tissues to give them more resisting power.

The application of heat or cold is beneficial, incorporating an antiseptic in it, as echinacea with ice water or hot water as may be indicated until the circulation is equalized or the temperature of the part approaches the normal. Bovinine is another remedy that may frequently be used with benefit in the chronic cases that need nourishment. Turpentine has also been used as a stimulant and antiseptic in the early stages. Macrotys to preserve as much as possible the muscle fibre that is in contact with the cellular elements inflamed, phytolacca for its well-known antiseptic and alterative properties and following the specific indications closely, libradol as a dehydrant, antiseptic and anodyne. Electricity is recommended by Neiswanger, apocynum in the œdema of congestion and infiltration, hydrastis as a tonic and stimulant in the chronic form or in the latter stage of the active form, iodine as an antiseptic and astringent stimulant; kalu mur, sulphite of sodium, sulphurous acid and baptisia will all serve well. After having discovered the pus and incised the tissues or after you have been unsuccessful in a few instances take the case again as one requiring medication and do not overlook the indications for medicine and never fear that the results will many times depend altogether upon your skill, not as a surgeon, but as a prescriber.

Frankly, I do not think that a debate of the superiority of

the medical or of the surgical treatment of this disease is proper. We well know that the indications for remedies are always very plain, if we can correctly interpret them. The indications for surgical interference are just as plainly to be seen and appreciated, and to claim the superiority of the one over the other would be to select the conditions in which it would be indicated and curative or to deny the efficiency of both, as we know that there are times when one will take precedence over the other.

CELLULITIS—THERAPEUTIC TREATMENT.

LEE STROUSE, M. D., COVINGTON, KENTUCKY.

Therapeutic remedies will assist nature in ridding itself of an inflammation and its accompanying deposits into the cellular tissue. Inflammation of any given part always involves the cellular organization, of which the whole body is composed, it being one conglomerate mass of cell upon cell, cells around cells and cells above and below cells to the completion and development of the animal system.

When the inflammation is not deeply seated there is a variety of applications that may be advised. If it be about a joint or any part bruised and contused, a good liniment is to be made of the following: Equal parts of the saturated tinctures of lobelia and capsicum, applied until there is a burning sensation, then not so often.

Hamamelis distilled, ounces four, and arnica one ounce, is a more mild and yet very efficient application. Sometimes the chloroform liniment is to be thought of and serves a good end if rightly used. Application of the compound tar plaster applied to the point of vesication or croton oil or cantharidal collodion the same, and sometimes in extreme cases a good-sized blister of cantharides. Iodine in the hands of some has proven satisfactory, yet in my hands it has been of no avail whatever.

If the cellulitis be in or about the lung cavity the internal administration of such well-known and tried remedies as aconite, veratrum, asclepias, bryonia, sticta pulmonaria, podophyllin in small and repeated doses sufficiently to move the bowels three to five times in twenty-four hours, echafolta, jaborandi and carbonate of ammonia are all good and if specifically used will give satisfaction. Involvement of an organ in the abdominal cavity,

such as appendicitis and ovaritis, should be met with the proper remedies, being some of those above named. Medicines will accomplish a great deal if given rightly.

A deep-seated cellular abscess, when it reaches the point of fluctuation, calls for an incision, and drainage had in accordance with the case in hand, using aseptic washes and injections, of which there are many good ones. I think that too early incision is bad practice; care and caution should guard well each individual case.

ABSCESS.

A. W. PORTER, M. D., LOOGOOTEE, INDIANA.

An abscess is "a collection of purulent matter in any tissue or organ of the body, the result of a morbid process." The cavity where pus is held is lined by a limiting membrane, sometimes called false membrane. A collection of pus in any part of the body not having this lining membrane, but which has a ragged surface, is not properly an abscess. Abscesses are divided into acute and chronic. The acute is the result of a local inflammation, in which you have redness, swelling, heat and pain. A chronic abscess is slow in forming and appears mostly in debilitated subjects. It is found in disease of bone and joints, in the neck, the axillary region, the loins and the groins. When pus has that character described as laudable it has a faint odor, but when decomposition has taken place the odor is often exceeding offensive. It is of a yellowish color and is composed of granular matter, shreds of disorganized tissue, pus cells and oil globules. When it is of the consistency of cream and contains a large number of pus globules and is unirritating it is called laudable pus. If it is reddish and thin it is called sanious, and when it irritates the parts it comes in contact with, it is called ichorous.

Symptoms.—We have both local and general symptoms of abscess. The local symptoms are swelling, heat, redness and pain, which precedes as well as co-exists with the formation of pus. In connection with the local manifestation we have more or less fever, the secretions are deranged, the urine is high colored, the tongue is more or less coated and the bowels are constipated. After a time the integument becomes pale and there is fluctuation. The pus approaches the surface, where there is least resistance.

Treatment.—If taken in time an abscess may be aborted by the application of anodyne and cooling agents and the internal administration of the proper sedative. In some cases give specific veratrum in the usual dose, while in other cases aconite will do better. If the bowels are constipated they should be moved with antibilious physic or some saline cathartic. In most cases when the physician is called the time for aborting the abscess has passed and pus is beginning to form. All that can be done then is to hasten suppuration and prevent unnecessary distruction of tissue. We now apply warmth and moisture in the form of fomentations and poultices. Clothes wrung out of water, as hot as can be borne by the patient, the cloths consisting of a number of layers, so as to retain the heat, is equally as good as a poultice in many cases. Heat and moisture tend to bring the abscess to maturity and also acts as a local anodyne.

In a case of mammary abscess apply to the breast camphor and turpentine, or another remedy that is good is equal parts of oil of sassafras, oil of cajeput and olive oil. For internal medication we give specific veratrum or aconite as indications may require, with specific phytolacca. This treatment, if pursued faithfully, will bring about resolution in most of the cases, but if we fail in arresting it in the first stage the case is made much milder in the stage of suppuration.

In cases of recurring abscesses a good remedy and one that will arrest their formation is sulphide of calcium. Give of the 2x trituration in five grain doses, four times a day.

When the formation of the abscess is due to a want of activity in the lymphatic system, specific iris in two-drop doses every three or four hours is a good remedy. In some of these cases Fowler's solution will act well when given in small doses. Another good remedy is specific echinacea in from five to fifteen drop doses every four hours. This agent has a positive inhibiting influence on pus formation.

When digestion is bad, with torpid liver, fulness of tissue, especially where there is fulness of the veins, with full tongue, coated yellow, full abdomen, dizziness, give podophyllin in small doses, the 1-10th of a grain three times a day will be sufficient.

In every case of abscess, wherever it may be located, if there is an excited circulation, pulse increased in frequency, give veratrum or aconite from the beginning to the end of suppuration. As you control the excessive circulation, so you control the excessive formation of pus and distruction of tissue.

When an abscess has reached maturity it should be opened at the most dependent point, for the purpose of giving the best drainage. The incision should be of sufficient size to give a free discharge, and in many cases it is better to operate under cocaine anæsthesia. If the abscess is located in a part of the body where a scar would be unsightly the aspirator should be used to empty the sac which should be done thoroughly and then washed out with a weak solution of carbolic acid. After the needle is removed apply an antiseptic dressing, retaining it with a bandage sufficiently tight to compress the opposite walls of the abscess.

In strenuous cases, where the tendency to recovery is slow, quinine and iron in some cases is good. In other cases the iron alone is best. A good preparation is the following: Tincture ferri chloride, four drachms; glycerine and water, equal parts, sufficient to make four ounces; a teaspoonful of this four times a day.

THE DANGERS VERSUS THE BENEFITS OF MODERN SURGERY.

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The purpose of this paper is not for criticism on the proper, faithful and conscientious use of the knife and other surgical instruments as a means of cure in their varied employment, but to urge the necessity of a more perfect knowledge of when and where they should be used.

There is not a surgeon living, nor has there one lived, who could not recall instances of what might very well be termed involuntary manslaughter in proposed attempts at surgical cures. As a matter of course no one remembers when he himself ever did work over when he had any conscientious compunctions but believed that he could point out a serious mistake of the previous operation. No one has performed an operation, the result of which was not satisfactory, who could not easily put forth an argument satisfactory to friends and professional brethren and finally satisfy himself of the righteousness of his procedure, whatever the result.

There are thousands of men and women today who are going without arms and legs, the result of hasty amputations.

Some because of improper diagnosis, some because of the desire on the part of the surgeon to perform the amputation. While others have been dismembered because it was the easiest, speediest and cheapest way to discharge the patient, and many, I fear, to secure a good fee and thereby bringing about an imperfection which cannot be appreciated except by those whose loss the human tongue is short of language to express.

In modern surgery, amputations are least and last in rank of operations failing of benefit. Let us consider the gynæcologist and laparotomist. A lady appears in the office and lays before him her complaint. It may be a headache, a backache, a pain in the side, or she may have indigestion—it may be this, that or the other. To any or all the complaints are related, the familiar response from the doctor is uttered.

After she is through he begins with his queries, stereotyped, as is "Now I lay me down to sleep," knowing as well where he will land as when he is landed. He will look at her tongue, feel her pulse, examine her back and side—not because it is necessary, save to properly impress the patient—going the rounds of a "thorough examination," closing with a dissertation on nervous phenomena, resultant from impingement of pelvic nerves and an explanation of the only way this can be relieved. The novice advises "partial treatment," what some call "chair operations," such as applications of iodine with glycerine, burning with nitric or carbolic acid and partial curettage. The more advanced specialist laughs at such nonsense, being waste of time and money and wasting opportunities for a permanent cure, he finding it necessary to go into the peritoneal cavity, bring out the ovaries, excise them wholly or partially, winding up with his particular method of ventral suspension or perhaps finding it necessary to remove the entire uterus and appendages.

It is not to be understood that the foregoing is error in all instances, but in many it certainly is, and my observation has abundantly proven to me that such error is often criminal, being done with intent, both on the part of the operator and patient, for purposes that would turn pale the face of the dusky savage and cause the more enlightened to raise their hands with awe in condemnation of such perfidious practice.

If I should call upon this convention to verify the foregoing intimation by asking every man who had been called upon as many as ten times to perform work interdicted by law to raise

the right hand, who among you would not raise his hand? And should I ask who among you, having been called upon, have not observed after your refusal that such service had been obtained elsewhere, how would you answer?

Again, should I ask who among you have not been solicited to treat parties for ostensible afflictions, that after investigation found such treatment would be a violation of professional as well as statutory law, what would be your response?

Once again, who among you have not known parties to go to infirmaries and hospitals and have operations performed which you have every right to believe were not in any wise justifiable and had better been left alone? Every physician in this assembly can verify these propositions, and I feel sure that every active practitioner in this broad land of ours could give a similar report. This being true the condition is absolutely appalling.

In all I have said it must not be inferred that it is yet claimed that there is not great good accomplished by the various methods mentioned, but, intent in procuring and in doing this work, much is done by request to prevent further care and trouble with offspring. Much is done on recommendation of the physician to thereby secure a fee, while much is done from sincere and honest motives for improvement of physical infirmities, from which great good is accomplished.

Another fad with the surgeon is going into the abdomen like a terrier into a barn after a rat, for an appendix so soon as a pain is felt below the umbilicus. Some, for fear that not enough complaint would fall below that line, have beyond question established the fact that the field for appendicial abscess lies over the entire abdomen, thereby justifying the operation for a pain in whatever part of the territory the pain and tenderness may be located. This particular operation has been performed with such frequency and such varied results that the populace in many localities have been outspoken in their condemnation of such practice.

Ridiculous and ludicrous anecdotes have been circulated as criticisms on this indiscriminate use of a most necessary and beneficial operation when conditions actually requiring it be present. One of these is: A young man traveling in the West, who was a victim of epilepsy, wore a placard on the abdomen as follows: "Don't operate for appendicitis, for I have already been operated on for this disease four times."

It is an easy thing for the surgeon to say this is all talk, but the thing to do is to know positively when an operation is necessary. I ask, how are you going to know it? Not many years ago I saw a surgeon, in whose diagnostic ability and operative skill I had as much confidence as any man who ever wielded the knife, take for a subject a party of reputation, who was supposed to have a redundancy of the sigmoid flexure of the colon. The proposition was that if, after making an exploratory incision, such redundancy was found, the sigmoid would be resected and a cure in that way effected.

The incision was made, the redundancy exposed (and, indeed, the gut appeared to be too long), but owing to the otherwise healthy appearance of the viscus resection was abandoned. At this juncture the operator turned to those present and said, "Now we will look to the appendix and see if it is a source of the trouble, and before the exposing, I will say that if on examination I find a narrowing of the lumen toward the center of the appendix, it will prove that it is a source of trouble and shall be removed." The exposure was made, the appendix was caught at the distal end, between the thumb and finger of the one hand and by a stripping pressure toward the cæcum with the same digits of the other hand, a slight narrowing was observable midway between tip and cæcum. It was agreed that this was primæ faciæ evidence that no longer was Mr. Appendix a safe and trustworthy vermiformis and quickly found himself consigned to the waste basket. What came of the patient, I never heard.

Another more recent case and one attracting the attention of a large city, and with the result of which I was made tolerably familiar, was as follows: A man in the fifties, of reputation in more ways than one, was attacked with pain in the bowels; a physician was called; he had the family to call another of greater skill. He in turn had called another of still greater surgical skill and repute, and after deliberation they three agreed to call the bell wether surgeon of the whole city.

This last surgeon supported an infirmary, where some are taken and afterwards go away, where some go and are afterwards taken away. This great big doctor, on stepping into the room, advanced toward the bed, placed his hands on his hips and for a moment or two eyed the patient. He then opened up by saying, "Gentlemen, if this man is not in my infirmary in two hours I will withdraw from the case." So saying, he walked

away. In two hours the patient was in the infirmary, in five hours operation for appendicitis had been performed and ten hours later the undertaker had charge of all that was earthly, while the essential principal was gone by transmigration, evaporation, dissipation or elevation—to be hoped the latter. I was reliably informed that the undertaker said if there was any evidence of anything like an inflammatory action having taken place in any part of the bowels it was beyond his ability to locate it. Yet I was also informed that on removing the appendix this great surgeon made exhibition of a very small dark spot at about the middle of the excised non-essential, where he said it had ruptured, pouring out its contents into the peritoneal cavity, rendering hazardous his chances for recovery.

I could report a volume of cases subjecting operators to criticism, but these will suffice to call attention to the many evils connected with modern surgery in its different departments.

I am very fond of the knife when the knife is the only thing to be used and fond of the speculum, the tenaculum, the curette, the needle and the forceps, but I believe, yea I know, that they are used in thousands of instances where properly conducted specific medication, local and internal, would yield better results.

I feel that I am safe in saying that over one-half of all the cases generally supposed to require operations on the entire pelvic viscera can be cured by the careful and discriminate use of hydrastis, specific echinacea, specific elaterium and specific mangifera indica and specific thuja occidentalis and hamamelis. The uterus, painful, hyperemic and hypertrophic, with diseased appendages, so frequently taken to infirmaries for cutting, multilation and suspension, with an expense of from $25 to $500, can more effectually be cured by carefully, every three days, dilating and irrigating with Lloyd's hydrastis and hamamelis, followed by tampons of absorbent lint, saturated with Lloyd's hydrastis, two parts; distilled water, two parts, and specific elaterium, one part. It will soon be observed that large quantities of serum will be thrown off, the uterine volume diminished, the patient improving and cure not far ahead.

If this same uterus has an appearance of hyperplasia, rather than hypertrophy, mangifera gives better results than elaterium, with the association of hydrastis and a small per cent of thuja. If hyperesthesia is a marked feature in either condition echinacea or echafolta should enter into the combination in every case, being

the best, safest and most efficient local anæsthetic known, as well as our best vegetable antiseptic.

No sane man who has tried divulsion associated with deep urethral injections of hydrastis and specific hamamelis, using echinacea as a local anæsthetic, will ever again use a urethrotome.

More than one-half of all the rectal diseases to be found can be cured by the judicious use of these remedies. So, also, with local bladder troubles. Indicated internal medication is in no case excluded.

DOES ERICHSEN'S DISEASE EXIST OR DOES IT NOT?

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If any one subject should engage the attention of railway surgeons to exclusion of all others, it is that of injuries to the spine, especially that class of injuries which are due to indirect violence. In those cases where the injury has been applied directly to nervous tissue the results are so immediate and in such perfect accord with our present knowledge of the finer anatomy of the cerebro spinal axis that any discussion of their nature would be out of place. Our attention should be directed to that questionable group of spinal injuries in which it is claimed that concussion of the cord has taken place without any fracture, dislocation or other gross lesion of the spinal column.

It is proverbial that the laity are fond of names and this remark applies with striking force to the maligner. Erichsen, in writing his lectures in 1866, supplied a long-felt want, and from that time down to the present the records of our courts are replete with damage suits for concussion of the spine, railway spine, Erichsen's spine—concussion from indirect violence. It is rather a significant fact that prior to writing his paper, Erichsen was disappointed in his application as railway surgeon to one of the large English corporations. Admitting that his intentions were of the best, it is nevertheless too painfully evident from his writings that he was unconsciously biased by his personal rebuff. This supposition gains additional color from the fact that Erichsen himself admitted in later writings that the conclusions reached in his early studies were erroneous. His acknowledged position, his surgical attainments, and his great rhetorical gifts made his paper of authority in his day; and it

has been only for the last few years, when his work was reviewed in the strong light of modern pathological knowledge that the tangled mesh of insinuating and often misleading statements could be seen in its true light.

Had Erichsen been the best neurologist of his day, he was still ignorant of the histologic structure of the cord, ignorant of its systemic degeneration, ignorant of everything in spinal pathology, except a few facts about locomotor ataxia. He never examined the reflexes, and rarely mentioned anesthesia. In common with men of his day he was necessarily deficient in a comprehensive knowledge of nervous symptomatology. Pierce Baily says, Erichsen's theory of concussion of the spinal cord as a pathological entity was purely hypothetical. Microscopical technique is more advanced now than it was the time he wrote; yet it has thus far failed to disclose not only molecular pathology, but any such a thing as molecular structure. Molecular disorders are still in the domain of speculative science. Local spinal anæmia and hyperæmia to which he attaches much importance are absolutely unknown.

It is not intended to reflect any discredit upon Erichsen, but writing at the time he did, it would have been impossible for him to have formulated a theory which should serve as authority today. It is not surprising then to find his lectures vague and indefinite—cause and effect being constantly confounded. His deductions, although clothed in the seductive language of "the master," are absolutely without value. Erichsen opens his lectures with misleading analogy between the brain and spinal cord. There anatomic relation absolutely excludes any such comparison. Let us consider for a moment upon what a feeble basis this analogy rests. The brain practically fills the cranial cavity, no great distance separating it from its containing wall. The bones are subcutaneous, so that any force applied to the scalp necessarily acts directly upon them. Now the spinal cord on the other hand is suspended in a capacious canal by its membranes, and by the nerve trunks passing out the intervertebral foramina, and are so surrounded by the cerebro-spinal fluid that considerable space exists between the cord and the vertebral column. Nature has still further protected this portion of the nervous system by surrounding its bony case with a thick muscular pad—the extensor mass—which makes injury to the nervous tissue without demonstrable lesion of its bony canal, well

nigh impossible. Sir Frederick Treeves aptly remarks, "it is difficult to understand, therefore, how a structure so protected can be so violently disturbed by a shock received upon the body as to undergo a grave and progressive loss of function." Think of a caterpillar suspended in a long glass tube of water, and how difficult it would be to injure the animal without marked external violence. The cord is suspended very similar.

Modern pathology has taught us, moreover, that concussion of the brain is an expression without meaning. There is always some lesion of the cerebral tissue which will account for the symptoms. With our present methods of diagnosis, and our accurate knowledge of the course of the great nerve tracts, the injury can be definitely located. It is immediate and organic in its character. It will thus be seen that the so-called concussion of the cord is a surgical chimera, the existence of which is doubted by all. Erichsen's expression, "concussion of the spine" is still more misleading, as is very properly mentioned in Holmes Surgery. We do not speak of concussion of the cranium, yet this portion of our bony anatomy is much more exposed to the effects of violence.

A brief review of some of Erichsen's cases will serve to show the inaccuracy and vagueness of his ideas. Many of them are examples of severe injuries to the cerebro-spinal axis. Of the cases, which today would come under the common headings, meningitis, spinal hemorrhage, fracture and dislocation of the vertebræ—with well marked and characteristic symptoms and signs, a very small number can be understood as being due to functional disturbance of the entire nervous system. From his own language it is difficult to understand the exact nature of the patients' ailment. Of his series of fifty-three cases only seventeen were railroad accidents. Case six is undoubtedly a case of hysterical paraplegia. Case fourteen, fifteen and sixteen proved to be unsuspected fractures and dislocations. Cases seventeen to twenty-four were imperfectly reported. In case forty-eight he fails to distinguish the difference between cerebral and spinal origin, attributing a facial palsy to an injury to the cord. His one solitary autopsy, which he uses as a basis for his pathological spinal concussion, was surely a case of locomotor ataxia.

A chain is only as strong as its weakest link. Erichsen believed that an individual who had received a severe shaking up could subsequently pass through a latent period of months ex-

hibiting practically no symptoms of neurasthenia, and then gradually evolve a long train of disturbances, ending in permanent disability and serious improvement of the entire nervous system. It is sufficient to say that pathological evidence for such cases has never been demonstrated upon the autopsy table. It is striking, that with all the technique and improved methods of arriving at pathological data, enamored of the principle of investigation, and the intense interest this question has excited, not a single post-mortem is on record, which establishes the possibility of concussion of the cord by indirect violence, without most serious and unmistakable concomitant symptoms or lesions. If such evidence existed, it would be heralded to the public in red letters by anti-corporation lawyers and doctors. It is a gross fact that instead of these cases languishing, they almost invariably recover after a good thick "green-back" plaster is applied. Bryant says, Erichsen's views should not be accepted with too much alacrity because of the high authority from which it comes. Post-mortem examinations are required to render the pathology of the cases clear. The course of such cases is uncertain, and the prognosis difficult to render.

When the motor power has been lost from the spinal mischief, the best test is galvanism. A healthy muscle supplied from a healthy nerve center will always contract upon the application of the galvanic current. When the nerve centers are so diseased as to produce paralysis, the current will produce no movement. This test is beyond the patient's control and cannot be resisted, and is consequently valuable.

For the purpose of revealing the rottenness and deception in such cases, I will report three cases. The first case is that of a young man who celebrated his ten thousand dollar verdict by getting upon an uproarous drunk requiring several policemen to handle him, who a few hours previous was scarcely able to walk. Case two, a young man alleging impotency from traumatic neurasthenia obtained a verdict of twenty thousand dollars, and in a little more than nine months was convicted of bastardy. Case three, a young woman claiming permanent injury to the reproductive organs, of spinal origin, after a verdict for a large sum of money, was in a short time known to have been the happy mother of twin boys.

I insist that the physician shall carefully discriminate between true traumatic neurasthenia, general nervous disturbance

and feigning cases. Now in case of injury to the fair sex in railroad accidents prompt attention should be given to the disturbance of the general nervous system, and especially to the reflexes following uterine displacement, which if not well guarded and thoroughly understood may contribute to the finding of a jury. A verdict based upon injuries to the spinal cord or injuries of spinal origin, when displacements were the cause would be a grave mistake.

GUNSHOT WOUNDS OF THE EXTREMITIES.

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The injury to an extremity that a firearm may produce ranges from the simplest bruise or brush burn, to complete destruction of the member. The destruction of tissue depends on the kind of missile used, velocity at which it is traveling when the impact occurs, the distance from the weapon, and the kind and condition of tissue destroyed.

A soft lead ball usually produces a large ragged wound, the tissue surrounding the tract of the ball being contused. The wound of entrance usually is smaller than that of exit. If a bone is struck the ball is greatly knocked out of shape and consequently does damage to a larger amount of tissue. A silver or steel-jacketed ball usually does not cause much destruction of tissue except in zones of "explosive action and contusion" as the ball is seldom changed in shape by striking any kind of tissue. Bone may smooth or flatten one side. The wounds of entrance and exit are usually clean cut, one may be larger than the other, but are usually the size of the bullet.

During a war, wounds are caused by canon balls, portions of bursting shells and other missiles. Their nature depends on the shape and size of the missiles causing the injury. The difference in the size of wounds of entrance and exit is accounted for by the elasticity of the skin and subcutaneous tissues. It is explained that the bullet stretches the tissues before penetrating and the firm support afforded them by the underlying tissues prevents much destruction. After penetration the tissue contracts to normal, while at the wound of exit the tissues have no such support and are carried away by the missile.

This question assumes great legal weight at times, notably

in the recent ill-famed assassination of Governor William Goebel of Kentucky. The Republicans claimed that Col. Jack Chinn, who was walking a foot or two behind Goebel, did the shooting. The only thing that lent plausibility to their claim was that the wound in the chest was larger than that in the back. This discrepancy in the size of the wounds may easily be explained by the injury taking place in the field of "explosive action" and the fact that the bullet used was a silver-jacketed one.

The velocity at which the bullet is moving when the impact occurs modifies the extent of the injury. The flight of a modern bullet, fired from one of the latest pattern firearms, has been compared to the spinning of a top. At first it wabbles; then spins steadily and then wabbles as it is about to stop. The first is called the zone of explosive action and extends up to three hundred (300) yards; the second, the zone of penetration extends up to twelve hundred (1,200) yards, and the zone of contusion above twelve hundred (1,200) yards. When a bone is struck in the explosive zone the fracture is usually greatly comminuted while in the zone of penetration there may be no splintering at all, merely a clean cut hole through it. And in the zone of contusion we will have comminution, or merely denting in of the bone, or splintering.

The injury to the skin may merely be a small slit or an opening the size and shape of the bullet or much larger and irregular. In passing through a muscle transversely usually a distinct tract is left, but longitudinally the fibres are just separated and close together again, making it very difficult to trace the tract of the bullet. Tendons may be cut, bruised, or pushed aside. Facia may deflect a ball but not likely one of the new hard balls.

Bones may be perforated as clean as though punched out. This is more frequently the case where the flat bones are injured in field of penetration. Comminution of the bone may be quite extensive or several cracks may run from the wound. This is usually the way joints are involved when the bullet does not penetrate the joint cavity.

When a person is injured by being hit with a charge of shot from a shotgun at close range, a whole limb may be torn away or badly lacerated or a hole shot through the body, but when at a distance the shot may just penetrate the skin.

Some surgeon has said—"When a bullet has ceased to move it has ceased to do harm." This has few exceptions. When a

ball is lodged in the body and there is no infection around it, it is quickly encapsulated with connective tissue and does no harm. But at times it changes its position by gravity, or when resting next a hollow organ or a bloodvessel it may ulcerate through. The location of an imbedded bullet is determined by palpation, probing, x-ray examination and the symptoms produced. The location of the wound of entrance is of help only when we know the direction from which the bullet came.

When a ball does not go right through an extremity it is usually because its force is about spent or it strikes a bone. When a ball is found just under the skin and has passed through the pants leg or coat sleeve, we can expect to find a piece of the clothes just back of the bullet, because the force was not sufficient to cut the cloth, only to tear out a piece and carry it along.

The infection of a wound may be caused by germs on the bullet, on the pieces of cloth carried in or through by the bullet, or on the fingers of the attendant, instruments or dressing used. It has been demonstrated that a rifle ball does not travel fast enough for the friction to generate enough heat to sterilize it. When we consider the number of germs on the wearing apparel of the average man, we wonder how it is when a piece of his clothes is swabbed through the tissues, the wound can escape being infected. Although cases have been reported where retained pieces of the garment have become encapsulated, usually they will have to be removed on account of the infection present. Nussbaum says the fate of a wounded man is in the hands of the surgeon that first attends him. But very often the case is infected by officious friends. They will usually bind up the wound in the oldest, dirtiest piece of cloth they can find. They wouldn't spoil a clean piece for anything.

The prognosis depends upon the extent of the injury, the amount of shock, due either to fright or the injury itself, and the degree of asepsis observed during the first examination or dressing. Hemorrhage is seldom severe unless a large vessel is punctured.

The treatment will depend on the nature and extent of the injury present. It is seldom necessary to do much for a simple contusion or brush burn except, after cleaning thoroughly, to apply protective dry dressing. If a slough forms in a couple of days, dress it as any other sloughing wound. When a bullet goes right through the soft tissues of an extremity without injuring

the bone or large vessels, always render the skin around the wound as aseptic as possible. Don't probe. If there is any foreign body protruding from the wound, remove it, but one is not justified in probing a clean-cut, penetrating wound. The danger of introducing some infection is so great. The chances are that, as the bullet had force enough to go entirely through, nothing has been left in the tract that could be removed with a probe. Merely put a dry aseptic dressing on and watch developments. If there is any infection or foreign body present, it will soon disclose itself.

But, if the bullet can be felt just under the skin, it should always be removed. This is usually easy if the cut is made down to it and the facia is thoroughly loosened around it. Even then it requires a good deal of force to pull it out, unless the air is allowed to get in back of it, thus overcoming the suction. After its removal the wound back of it should be gently explored for the pieces of clothes that will usually be found. If any are found, they should be removed and drainage inserted a short distance. If none are found, better be on the safe side and insert drainage for twenty-four or forty-eight hours and dress aseptically.

I recently had a case where the pistol ball had just force enough to go through the clothes and muscles of the leg, and lodge under the skin on the farther side. I cut down and removed the bullet; explored the wound fairly well, but did not find anything. Inserted drainage. On removing the drainage at the end of twenty-four hours I noticed something black in the wound. On removal this proved to be a piece of the patient's pants. The pants were dirty and greasy and the wound was infected all the way through. The cellulitis developed was quite severe, temperature 103 degrees. It was controlled by hot, wet dressings, free drainage through and through and the indicated remedies internally. The nurse was very ignorant and did not know anything about hot sterile boric solution, so I put the dressings on very wet and had her keep hot stovelids or water bottles to the leg.

Every case of accident I get, unless it is positively contraindicated, I flush the bowels thoroughly, using usually magnesium sulphate. After an accident, especially where it is necessary for the patient to lie in bed, the bowels are slow in acting and the salts, besides moving them, helps to remove the soreness that develops.

A person receiving the charge from a shotgun at close range may lose a finger, a hand or a whole upper or lower extremity. At longer range the shot may cause multiple penetrating wounds, or the shot may have just enough force to go through and lodge under the skin. When the principal blood vessels are destroyed it is useless to try to save the part beyond the injury. But if the blood supply is intact, even if the bone is greatly comminuted, we should make every effort to save it. We should be particularly conservative if the injury be the upper extremity.

When the part is so badly lacerated as to demand amputation never operate until the patient has recovered from the shock. If the injury or loss of blood is sufficient, he is going to die and an operation would be useless. But if he has a slight chance and we add the shock of anesthesia and operation, we certainly destroy what little show the patient had to get well. This rule applies to any crushing or other injury to an extremity. Certainly we should control the hemorrhage, but we can easily do that with a constrictor, tourniquet or even a knotted handkerchief.

In treating these extensive injuries it is necessary to exercise the most positive asepsis throughout, first controlling the hemorrhage, then removing all dirt, dead tissue and loose fragments of bone. In making the necessary repairs always save as much tissue as possible, because if the blood supply is good we will usually get good results. Then dress carefully, immobilize if necessary, and we usually get better results if the parts are kept at rest. Continuous irrigation with hot boric acid or normal salt solution will oftentimes retain life in tissues that would with dry dressing slough. To accomplish this have a pail or can to hold the hot solution suspended about two or three feet above the injured limb and have a small rubber tube attached to convey the water very slowly to the dressings. As it is necessary to elevate the injured part to facilitate the return of the venous blood. and water flows very readily down hill, one has to be very careful in arranging the rubber sheet or oil silk to prevent the bed getting wet. But it is better to lie in a wet bed for a couple of days than lose a hand or foot.

Powder burns, while not serious, are irritating and disfiguring. From the articles in the journals there are any number of sure ways of removing them. One spoke of bleaching the particles of carbon by the application of peroxide of hydrogen; another spoke of applying 95 carbolic to each grain, the re-

sulting slough removing each grain. This, while painful, is sure. The only drawback, it can not be applied to a large surface at one time. This appeared in the Eclectic Medical Journal in 1903.

Every year many young lives are sacrificed on the altar of so-called patriotism by the abuse of the toy pistol. All of the cases that develop tetanus are those where the wounds are closed up and heal readily. In four to ten days the tetanus symptoms appear. Bacteriology teaches that the tetanus baccilus is an anærobic germ; that it flourishes most where there is least oxygen; consequently if we dress our suspicious cases open and allow them to heal by granulation we run less danger of developing tetanus than if we closed up the wound with stitches or an impervious dressing. But if tetanus should begin to develop I should saturate any patient with gelsemium. I do not know from experience, but I judge it would be almost impossible for a person that had a marked ptosis from gelsemium to have a very severe muscular spasm.

Injuries to the bones may consist of contusions, fissures, perforations, single fractures and comminutions. They are diagnosed by the location of the wounds in connection with the position of the part when injured, and the usual signs of fracture, loss of function, crepitus, preternatural mobility, pain and swelling.

Treatment is governed by the conditions present. The vicinity of the wound should be thoroughly rendered aseptic. The tissues from the bone to the wound of exit should be explored as thoroughly as possible, without causing more damage, for the removal of any loose fragments of bone lodged therein. The necessary plastic work is to be done. Then the fragments are to be put into the best position possible and held there by suitable apparatus. The proper kind of apparatus is often difficult to contrive. It is necessary that it be efficacious, light and agreeable to the patient. The blanket splint or sand bags are probably the best. After the acute swelling is reduced then a permanent dressing, such as a plaster cast with openings opposite the wounds for dressing purposes. Never apply a plaster cast to a compound fracture as a primary dressing before swelling has taken place. If you do, you will have to remove it on account of the extreme pain, or if you do not remove it, you are liable to have pressure, necrosis, resulting in loss of limb or even life.

If the injury is so extensive that gangrene would certainly follow, or if when the wound healed the limb would be useless,

it is better to amputate. If a surgeon is conservative and treats a patient as he should like himself treated under like circumstances, he will seldom make any grievous errors. It is very difficult to prevent infection in these severe crushing injuries. When osteomyelitis gets started or a sequestrum forms it is necessary to cut down and remove the dead bone. If the osteomyelitis is so severe as to endanger life it is necessary to amputate.

Injuries to joints range from a simple perforation of the synovial sac to a complete crushing of all the component bones. A ball striking the shaft of a bone near the end may open the joint by the cracks or fissures, extending into the joint cavity. The diagnosis is made by the location of the wound, impairment of function, deformity, crepitus, acute enlargement of the synovial sac, escape of synovia mixed with blood from the wounds and the finding of bone fragments in wound of exit.

In the past the prognosis was rarely favorable, the mortality being so great on account of so many bad infections taking place. But with our present aseptic surgery the results should be fair, both as regards recovery and functional activity.

Treatment is grouped under three heads—expectant, excision and amputation. If the surgeon gets the case before it is infected usually there is not much danger or trouble from infection. Always cleanse carefully, removing foreign bodies, detached pieces of bone and the blood, if there has been much hemorrhage into the joint. It is usually necessary to establish drainage if there has been much destruction of tissue. After approximating the fragments as nearly as possible put on some dressing to immobilize the joint. Use splints of wood, fibre, cardboard or tin. Often we will have to use extension so as to prevent shortening. If the case is infected with the resulting death of pieces of the bones, it is necessary that the joint be opened and all dead tissue removed or if very much bone is affected we will get better results by doing an excision.

When conservatism fails to control the case we will either have to do an excision or amputation. If there is much crushing of the bones and the principal blood vessels and nerves are not destroyed, an excision will usually give good results. But if the blood vessels are destroyed it is necessary that an amputation be performed.

As to whether it would be better to have an angular ankylosed extremity that will usually be in the way, or a nice stump that

an artificial limb could be easily fitted to, is a question that should usually be left to the patient and friends. In the treatment of wounds of the different joints it is necessary to modify the treatment to suit the individual case.

RUPTURED URETER (CLINICAL REPORT).

J. M. WELLS, M. D., VANCEBURG, KENTUCKY.

Let it be understood that we mean the fibro-muscular tube which conveys the urine from the kidney to the bladder. It begins with the pelvis of the kidney, a funnel-like dilatation, and empties into the base of the bladder and is from sixteen to eighteen inches long.

Rupture of the ureter is said to be attributable to several causes, one of which is falling full length on the stomach, or abdomen, on an incline plane, giving the body a sliding motion, the momentum carrying the body forward when it strikes the ground. At this instant if the body be in rapid transit, running or walking fast, the abdominal and thoracic vicera would also receive an impetus, sending it forward, and thus would drag on the ureter, causing it to separate in part or in whole. One such case has been reported to the writer. I presume to say that ruptured ureter is of rare occurence, and I doubt if it ever occurs from the cause as given above.

Report of Case.—L. A., aged seventeen years, male, delicate, but not more so than other male members of the family, had a history of some kind of bladder trouble since the age of three years. At about the age of eight he began having attacks of acute pain along the course of the ureter and in the glans penis, which brought on nervous manifestations almost amounting to hystero-epilepsy, when after two or three days in bed he would recover and be up and about again. About this time the family physician diagnosed uretheral stricture, just on what grounds we can not say.

On October 11, 1902, the writer was called to see and take charge of this case. I found a temperature of 102° F., pulse 110, respiration 20; tongue normal in color, coated at the base. There had been some vomiting, some evacuation of the bowels, but not freely or fully evacuated; abdomen distended and tympanitic, an

area of relative dullness three inches in diameter over McBurney's point and some pain and tenderness at this point; urine normal in specific gravity and quantity. I did not think a temperature of 102 warranted a diagnosis of appendicitis, though the symptoms seem to point that way. Therefore, excluding this, I diagnosed obstipation of the bowels.

Treatment.—Magnesia-sulph. in small and frequently repeated doses with the specifically indicated remedy, together with colonic flushings. Three or four days of this treatment relieved the bowel condition, the stools becoming natural, the distension and tenderness subsiding. At this stage I discovered marked dullness beginning at the crest of the ilium, extending laterally from the latisimus-dorsi to the umbilicus and as high as to within an inch of the right nipple, compressing the lung and developing some cough of a dry, hacking nature. Counsel was called and pronounced the case one of abscess of the liver and appendicitis. In spite of the treatment and the disease the patient was up and dressed and about the room in ten days. Three or four days after this his trousers became too small for him and it was found that the abdomen was greatly distended and the area of dullness was increased, so much so that it extended one inch to the left of the umbilicus, to pouparts ligament and to the nipple. We then informed the parents that the belly must be opened, but that the disease was neither appendicitis nor abscess of the liver. Consulting physicians were recalled. The patient was chloroformed and scrubbed and an incision made over McBurney's point. When the peritoneum was incised there gushed forth a flood of water, just *water*. As it was being caught in a vessel Dr. H. lowered his head toward the stream, gave a sniff and said, "Urine!" This odor we could not detect, but the doctor conveyed a six-ounce bottle home with him, turned it over to a chemist, and in a few days sent us the result of the analysis, which read, 3-10ths of one per cent urea and no albumin. The drainage tube failing to work five days later, we aspirated and drew off twelve pints of the same kind of fluid, of which we secured a quantity that failed to show any urea, but did show 20 per cent albumin. The sac continued to fill and we continued to aspirate every six or eight days for a month, the amount gradually growing less, until at last it ceased to accumulate and the abdomen assumed a normal appearance and condition.

All this time the patient was passing every twenty-four

hours thirty-five to forty-five ounces of light straw-colored urine of a specific gravity of 1010, containing no albumin or sugar, a normal amount for both kidneys. I was opposing and the surgeons insisting on the patient going to the hospital to have the kidney removed, which in my opinion would, in his weakened condition, have been fatal. The victory was ours and the young man is well and has both kidneys.

No abscess of the liver was found and no disease of the appendix. I was firm in the opinion that the last-named diseases or conditions did not exist before the exploratory operation confirming our opinion was made, although this opinion was based on a slender thread—a temperature of 103 for appendicitis and the patient lying continuously on his left side, whereas he should lay on the right side, if abscess of the liver existed. Sometimes we know things by intuition.

This young man was confined to his bed for five months and was reduced almost to skin and bones, but we had no bed sores or other complications noticeable. Surgery is a good thing in general (perhaps too much of it is done) and a good thing to clear up a diagnosis, but failed in this instance. However, it demonstrated what was *not* the matter, but what *was* the matter is not clear yet. It would not matter what was the matter if it were not for matters in the future, but in order to know the future we must strive to know the present or the past, for by this knowledge we will be better prepared to care for our patients in the future.

We have conversed with a surgeon, who was of opinion that a kidney stone had lodged in the ureter, cut through, the wound healing after the passage was walled off or ensacculated, the sac forming a secreting membrane, to account for the water.

PERIPROCTITIS AND ISCHIO-RECTAL ABSCESS—EARLY INCISION IN.

A. F. STEPHENS, M. D., ST. LOUIS, MISSOURI.

An inflammation of the peri-rectal tissue is termed periproctitis and usually terminates in abscess called ischio-rectal, or ano-rectal. The disease is seldom seen in children, but occurs most frequently in middle life, and men are more often affected than women. An inflammation of the connective tissue surround-

ing the rectum may be due to extension of a proctitis or to external causes.

As are abscesses in other regions of the body ischio-rectal abscess is marked by chills, increase of temperature, quickened pulse, loss of appetite, local pain and tenderness, constipation and distress in the region about the anus, characterized by a feeling of heat and fullness, a constant heavy throbbing pain increased bv the act of defecation. Inspection will show a rounded swollen area which is firm to the touch and very sensitive. The skin is reddened and glistening, all indicative of future if not present pus formation.

Permitting the disease to pursue its natural course, the pus when formed will burrow its way out in the direction of least resistance, which is usually in the direction of the rectum, especially if the difficulty originated from an existing proctitis. In the latter case the focal point of pus formation is necessarily deep-seated instead of superficial and following the zone of inflammatory action travels toward the bowel. On the other hand, if the trouble is due to some external cause, as from injury to the tissues from bruises, etc., it may work its way to the skin and not affect the bowel, although in this instance it will often reach the rectum if the exit is not made free.

The principal danger (and the one which suggests this paper) from ischio-rectal abscess is the resulting fistula in ano, which is very liable to occur if the abscess is left to itself and delay is had in compelling the discharge of pus externally and through the skin by an early incision, which is to be urged upon the patient, even though we may not be able to determine that pus is actually present at the time. An incision can do no harm and will relieve the tension and mitigate suffering to a marked degree; while if pus is present it will be given free exit and check its tendency to burrow towards the bowel. In other words, it will place the patient on the safe side of the problem.

In support of an early incision I will relate two cases briefly. Mrs. L. developed an ischio-rectal abscess, cause unknown, although it was supposed to have resulted from external influences. She was treated by the attending physician with poultices, fomentations, liniments, etc., and advised to wait until the abscess pointed. She did so, with the result that it pointed into the bowel first. It afterward made its appearance at a point about three inches from the anus posteriorly and to the right. She carried

a fistula in ano around with her for several years until an operation was done. I operated on her about two years ago, doing a division operation, and found the internal opening three inches above the anal outlet.

The second case was that of a man—Mr. S., teamster—who presented himself at my office with a forming, deep-seated ischio-rectal abscess. The trouble having existed for several days, I advised an incision at once, to which he consented. No fluctuation could be detected, the area of gluteal inflammation being firm, tense and painful. On making an incision a small pus cavity was found an inch and a half beneath the skin. A free incision was made so as to give easy exit to pus already existing and that which might form subsequently. A flaxseed poultice was then applied for forty-eight hours, after which plain gauze, well covered with vaseline, took its place. Over this was kept a compress wet constantly with echinacea and hamamelis, one part of the former to three parts of the latter. The result in this case was a large measure of relief from suffering at once, the inflammation soon subsided and no fistula in ano developed as a result of the abscess. I am moderately certain that had the man temporized but a few days longer the abscess would have opened into the bowel, thus giving rise to fistula. This happened in a similar case several years ago wherein the patient, a man, refused to be "cut."

It is therefore advised that a free incision be made early in all abscess formations about the rectum and deep enough to reach the pus pocket if it exists and extensive enough to permit of easy exit of pus that may subsequently form.

The treatment after incision may be left to the discretion of the physician attending, although that given above has proven satisfactory to me in all cases.

TREATMENT OF SEPTIC WOUNDS.

E. B. SHEWMAN, M. D., WAYMANSVILLE, INDIANA.

In the treatment of septic wounds medication locally and constitutionally is important, but we must not discount the forces nature has at her command. Nature's heroic efforts are manifested upon the invasion of pyogenic organisms in the tissues—

first, in an endeavor to prevent the spread from the point of invasion; secondly, to combat the toxic effects of products elaborated by the pyogenic organisms; thirdly, the attempt at expulsion of those organisms and their products; last, but not least, the repair of the tissues. Again, the factors which govern the degree of infection are—first, the virulence of the organisms; second, the power of resistance on the part of nature. The local and general disturbance depends on the relationship existing between these two factors.

Therefore, the physician in the treatment of septic inflammations must co-operate with nature, assisting her in the work she is endeavoring to execute, employing agents to destroy the virulence of the organisms without diminishing the vitality of the tissues and assisting nature in freeing herself of the infection by the administration of such remedies that will accomplish the task without depressing the vital force or weakening the power of resistance.

A stereotyped plan of treatment will not prove successful. The case at issue must be treated along indicated lines; the tongue is an index to systematic treatment, and I believe that the condition of the tissues at the seat of local disturbance is as much of an index to local treatment as the tongue is to systematic treatment.

The course of treatment includes the use of antiseptics, drainage, irrigation, frequent change of dressings, and internal medication. Antiseptics are valuable when judiciously used, but any antiseptic that lowers the vitality of a part should not be employed, and any solution that has an inhibitive effect should never be used, for it would be much better to wash the wound with sterilized water twice in twenty-four hours than once with a concentrated solution.

Antiseptics may be used by means of irrigation or wet dressings. The frequency of irrigation should depend upon the degree of absorption, the localization of the infection and the amount of wound secretion. I believe a solution of corrosive sublimate should never be used; that in a large per cent. of cases its use is more detrimental than beneficial. The wound should be irrigated with a 25 or 50 per cent. solution of hydrogen peroxide until reaction ceases, or a 1 to 100 to a 1 to 200 solution of carbolic acid may be used. Where the tissues are deep red and the base of the wound is exceeding red, with a secretion of foul-smelling pus, echinacea is the remedy, using for irrigation one part of specific

echinacea to two of sterilized water, and where the inflammation is active I have used the remedy full strength with good results. Where the tissues have a purplish hue, with a low grade of inflammation, baptisia is the remedy, using it in the proportion of one part to six parts of sterilized water.

Drainage should be thorough and complete to insure a successful issue, for much depends upon thorough drainage to assist nature in her efforts to control infection.

Where a wound becomes infected the dressings should be changed daily, in order to thoroughly irrigate. Wet antiseptic dressings are preferable to any other kind, for the reason that infection may invade the tissues beyond the original focus. The dressing being antiseptic, controls and checks its progress. For this purpose absorbent cotton saturated with 1 to 100 solution of carbolic acid may be used, or full strength specific echinacea or baptisia, one part to six of sterilized water. With the above treatment the local conditions are well cared for.

Systemic treatment consists of the selection of the indicated remedy, with attention given to the proper function of the emunctories of the body. Echinacea, when indicated, should be given in doses of fifteen to twenty drops every three hours. I have had phenomenal success with echinacea, but echafolta has disappointed me. I have used echafolta in cases where indicated without receiving the benefit desired and have discontinud its use and employed echinacea in the same case with remarkable improvement.

Baptisia, when indicated with sordes, tongue dry and cracked, with a brownish coat, and the mucous membranes of purplish hue, has no superior in the materia medica. Veratrum is frequently indicated also.

When the acute symptoms have abated and the infection destroyed we should use tonics, such as nux, strychnia and gentian.

DISCUSSION.

Dr. Duval moved to tender the doctor a vote of thanks for his able paper, and contended that three main factors were ever present—free drainage, abatement of septic conditions and sustainment of the physical condition, and these were to be maintained to improve all traumatic conditions. The use of echafolta was not always successful in some cases, in his hands in but few cases, but echinacea was always to be relied upon. Camphophenique is sometimes of value, as it is a stimulant. Sedatives

may be needed. Again, a case of tibial ulcer will require bandaging, with best results following same, or a stimulant to recovery may be found in simple gauze dressing.

Dr. Robertson stated the subject under present discussion was vital. Three points were to be noted—First, when to operate; second, regarding dressing; third, the after treatment. These were all important points. Care must be used regarding cutting. If you cut, then drain well. The doctor had treated over three cases of appendicitis. He drains well, does not irrigate, has been successful and does not believe in draining the wounds.

Dr. Church stated, regarding drainage, he believed in deep incisions. He makes an incision under pouparts ligament and does not irrigate. Does not dress under a week. He believes the appendix recovers normally in the surrounding tissues.

Dr. Holmes spoke regarding the drainage of wounds. He mentioned some cases that came under his treatment. One especially, in which he used a solution of the per oxide of hydrogen. He washed out the cavities to maintain complete cleanliness. He had had excellent success.

CIRCUMCISION AND ITS INDICATIONS.

J. E. G. WADDINGTON, M. D., DETROIT, MICHIGAN.

One can not peruse the daily death lists without being impressed with the large percentage of deaths among children under five years of age, which are ascribed to convulsions.

My daily experience leads me firmly to the belief—a belief which I am sure is shared by every thinking physician who has the orificial thought ever before him and realizes the insidiousness and danger of reflex irritation—that the death of nearly all these little innocents is really attributable to reflex irritation as a *cause* and to convulsions as an *effect*. I am also fully prepared to believe that circumcision is the indicated remedy in nearly all cases, male and female.

All male babes are born with a phimosis and females generally with an adherent prepuce of the clitoris, this being a natural condition at birth. These conditions in a varying course of time tend to right themselves, but at what expense of nerve force who shall say. We have in the meantime, however, thousands dying every year from the effects of reflex irritation induced by these

preputial adhesions. This may seem a strong statement, but let every conscientious thinking physician, who has been in practice for ten years, glance back over his experience, personal and otherwise, and he will bear me out. How often are we called to a babe any age from two months up (I once had to operate on one three days old), with a history of general irritability, nothing quiets or appeases it, can not sleep, suddenly wakes with a start and a cry, constantly twitching in its sleep. Marasmic.

If a male child cries when he urinates, very often a history of partial retention; in a female, the opposite condition of enuresis often obtains. If the child is teething all this trouble is generally ascribed to that process. An examination of the genitals will almost invariably disclose a phimosis, pine-hole opening or partial adhesions to some part of the glans. In the female we find a clitoris bound down or covered with more or less preputial adhesion, and the contiguous parts in a chronically inflamed condition.

It is surprising the early age at which these little ones will masturbate. We are taught to believe that sexual sensation is a minus quantity in such little ones, but whether true or not, I have seen case after case, even in infants, which were clearly of a masturbating order. The mother will often, in giving the history, remark that the little one plays frequently with his organ, and in female children the most frequent expression is, "She squeezes herself."

I recently at a clinic heard a well-known pediatrist remark that he had never in all his experience, hospital and private, met with a case of convulsions that could be attributed to preputial adhesion. So the world wags. What one condemns the other as loudly praises. The argument is plain. After circumcision we almost invariably find all these irritant symptoms fade out, provided the irritable condition has not lasted long enough to induce organic changes in the economy. I have had a few cases of epilepsy in young men varying in age from sixteen to twenty-four. In some I found preputial adhesion, but in the greater number the only evidence of irritation was a superabundant prepuce and a glans more or less macerated and unhealthy looking. In each and every case perfect recovery ensued from circumcision, and some of the cases dated back five years and were having epileptic attacks twice a week.

As to the operation, we all know its technique. I never use

clamps. Generally with a pair of scissors I slit up the dorsal aspect of the prepuce to the required distance, then have my assistant hold out the flap with three artery forceps, one attached to each cut edge of the prepuce and the other opposite the frenum. It is then an easy matter to cut around on a level. A continuous carbolated catgut suture, with an iodoform collodion dressing, reduces the after-care to a minimum. Direct the penis to be always dressed up upon the abdomen to prevent blood stasis. In some cases where suppuration is feared I put in from four to six interrupted catgut sutures, leaving them long after tying, and then tie in a strip of iodoform gauze. This protects the cut wound edge very nicely.

RAILWAY ACCIDENTS.

C. R. CROW, M. D., INDIANAPOLIS, INDIANA.

In railway and similar accidents the surgeon should not be too hasty in rendering a decision as to the extent of the injury. He should not pronounce the injury trivial because the patient states emphatically that he or she is not suffering and therefore can not be injured. If he keeps the person under surveillance he may at a later hour find his patient suffering great pain or lying in a state of profound stupor or coma. On the other hand, we find others apparently seriously injured, because the external injuries are of such an extent that an unskilled person, or the laity if you please, would pronounce the injury fatal, while a close, skillful observation shows to be superficial and not serious.

In the year 1893 I was called to see a young lady who was injured by a locomotive backing against her buggy. She was thrown out, and lighting upon the coccyx, it was broken at its junction to the sacrum. This lady declared at the time of the accident that she was not at all injured. The following day I was called in great haste. On examination I found the condition as described and much more to follow at a much later date. The treatment for this fracture was to clear the bowels and pack the rectum, applying a pad externally over the fracture and a bandage and retaining the bowels for three days. I then again cleared the bowels and repacked. The first operation was done under an anesthetic by the assistance of Dr. Henry Long. This procedure was repeated every three days until a union was established. An

abscess appeared in the cul de sac of Douglas. This was aspirated and a solution of carbolic acid was injected into the wound. There was finally a satisfactory recovery.

On December 25, 1895, I was called to the Union station to attend a Mr. Haynes, who was run down by a freight train just outside of the city limits. Mr. Haynes seemed at the time but little injured. He walked to the ambulance, while his partner, who was bleeding profusely was carried on a stretcher. Mr. Haynes walked from the depot to the hotel, one block away, while his partner was carried. In two or three days his partner was seemingly none the worse for the accident. In the afternoon or evening I was called and found Mr. Haynes in a profound stupor. I sent him to the hospital, where his friends found him and took him home. A raving mania rapidly developed, which lasted six or eight weeks. For many months he was in a serious condition. He never regained his formal mental powers and finally met with a violent death at the hand of an assassin.

On February 8, 1904, a patron of mine was leaning against a cellar door in his dining room, when the door swung open, precipitating him to the cellar below. He struck with all the force 175 pounds could give, striking at the left parietal foramen. This man insisted on walking up to his room alone, saying that it was nonsense to send for the doctor. Coma followed that night and on the 10th he died.

Those who seem slightly injured at time of accident may develop serious symptoms of shock. Sometimes apparently slight blows at a later date develop chronic disease of the spinal cord and its membranes or shock to the spine, with serious results.

FRACTURE OF THE LEFT NASAL PROCESS OF THE SUPERIOR MAXILLARY BONE, BY CONTRA COUP.

W. W. WHEAT, M. D., MECCA, INDIANA.

In this case Mr. C. was asked by Mr. H. to help lower a pump into a well. A log chain was placed around the top part of the pump and Mr. C. allowed them to descend into the well to about one-fourth the distance from the top to the bottom, when the chain slipped, and catching a new hold, jerked the handle of the windlass from his hand and struck him beneath the right eye and

on the right side of the nose. The force of the blow was directed downward and to the left. Mr. H. brought Mr. C. to me for repairs and stated he would pay the bill.

On examination of Mr. C. I found the infra orbital region of the right eye lacerated; also a fracture of the left nasal process of the superior maxillary bone at the origin of the levator labi superioris alæque nasi muscle. This was known by working the upper fragment and the grating of the ends of the bones produced thereby. There was profuse internal bleeding from the nose.

In the treatment of this fracture I washed the parts affected with sterilized water and bathed them with an antiseptic solution of boric acid; then placed over the seat of the fracture on the external surface a thin layer of iodoform gauze; on this I placed a cork one-half inch thick, pressing tightly over the fracture, and used a thin adhesive strip an inch wide, beginning over the left malar bone and extending over the nose to the one on the right side; on this strip I put a strong adhesive plaster one and one-half inches wide, commencing a little external to the previous one, extending in the same direction to a corresponding point on the right side. I then packed the left nasal cavity with iodoform gauze. The subsequent dressings were similar. The patient recovered in twenty-four hours, so far as the bone was concerned, but in order to keep it straight the band was kept on for ten days. The nose is now in normal condition.

APPENDICITIS.

J. J. LINK, M. D., ST. LOUIS, MISSOURI.

Appendicitis has been the prevailing topic of medical and surgical essays within the last few years. Nevertheless it seems the disease is not yet generally fully understood, especially as to its varied pathology and treatment.

Appendicitis is not a new disease. It is one of those diseases which was long unrecognized or was mistaken for other pathological conditions or ailments of the bowels, having been variously called "inflammation of the intestines," "bilious attack," "iliac-phlegmon," "gastric attack," "paratyphilitis," "peritonitis," and it may be stated it was mistaken for the various affections of the intestinal tract that caused pain.

The appendix is located at the inner and posterior surface of the cecum. Its base being about one inch from the ileo-cecal junction, situated in the course of the longitudinal fibers of the colon.

The histological structure of the appendix resembles that of the large intestines; it is richly supplied with lymphoid tissue and glandular structures. There is no doubt but that the appendix is a retrograde structure of a once useful organ. It is believed by many observers that the appendix is the degenerated remains of the herbivorous cecum, it having lost its physiological functions since man has become more carnivorous. It is found only in man and the anthropoid ape. The appendix is usually poorly supplied with blood. Its one artery is a branch of the ileo-cecal artery. In the female there is often another artery which supplies it, derived from the ovarian artery. This fact may account for the reason that appendicitis occurs more frequently in the male than in the female. The appendix in the normal state has a meso-appendix and in many individuals a peritoneal fold extending from the ileum to the upper portion of the appendix. The length of the appendix varies from an inch to nine inches, the average length being about four inches, and the thickness may be compared with about a No. 10 English bougie. Its position may be appendant from the cecum, reaching straight down into the pelvis, or it may be within a ileo-colic fossa, within the ileo-cecal fossa, or coiled up within the posterior cecal fossa. It has been found to reach up and become adherent to the gall bladder (see A 3) and has a

number of times been found within a hernial sac. It has been claimed that in some cases the vermiform appendix is found to be absent. This is disputed by other observers. I have observed two cases with abscess formation, in which the appendix could not to be found in the usual location, and in those cases the appendicular abscess involved the ilio-psoas muscle, with the symptoms

A.—This shows the base of the appendix at 1, which is an inch from the ileocecal junction; 2, the usual position of the appendix; 3, an extraordinary long appendix reaching up and coming in contact with the gall bladder or liver.

that are usually present in psoas abscess. In these the appendix was found only after breaking through the post peritoneal structure. This goes to show that in rare cases the appendix may be situated

extra-peritoneally over the ilio-psoas muscle and so obscured that one may conclude that he has found a cecum without an appendix. So also if it lay in any one of the fossa and the mouth be closed by adhesions, the operator may again think it absent. (See Figs. B and C.)

B. (Deaver)—Shows the appendix extended into the pelvis at 4 and another position of the appendix at 2 covered by the colon and the other half of it at 1, uncovered but lying on the mesentery. An appendix with adhesions or abscess formation in the latter position will be a much more serious condition than under the same pathological changes in the former position.

Symptoms.—In a case of so-called catarrhal appendicitis the patient may begin with nausea, anorexia, a rise of temperature and a cramp-like pain about the umbilicus, which gradually becomes more circumscribed within the right iliac region. The tem-

perature in a mild case like this may vary from 99 to 101 degrees. The patient in a quiet and recumbent attitude will probably experience but very little pain, amounting more to a soreness; but upon pressure over McBurney's point, pain becomes quite intense. In case it is mild and the inflammation involves only mucous and sub-mucous tissues, or the structures within the serous coat and does not cause suppuration or necrosis of any of the tissues of the

C. (Deaver)—Here we note two positions of the appendix. One towards the medium line, 4; and another position, 1, in which the appendix is covered by the ilium 3 at mesentery 2. This latter position makes a very hazardous condition in case of abscess formation and necrosis of the appendix. The former position is the more usual.

appendix, the foregoing mentioned symptoms will gradually subside, and within three or four days the patient may be again able to be upon his feet and about his work.

In a more serious case of appendicitis the symptoms are usually ushered in more abruptly and more intensely; although in many cases of serious and extensive involvement the severe symptoms may have been preceded by a day or two of malaise, the patient complaining of indigestion, loss of appetite, with perhaps more fever and constipation. In most severe cases that have come under my observation, however, the patients were seized with intense pain and nausea, with or without vomiting, the pains being localized or rather referred to the epigastric region, while in other cases the pains seemed not to have had any particular

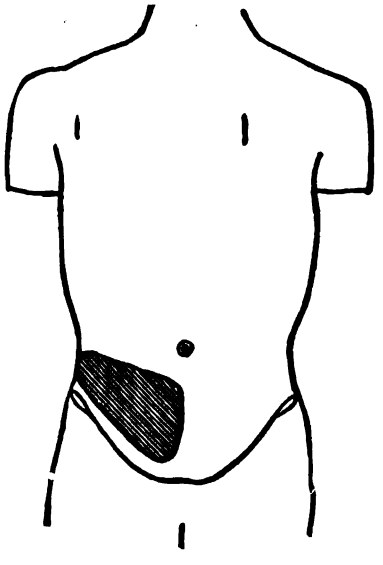

Fig. I.—This portrays a triangle of hyperalgesia, as described by Dr. Head.

location, but perhaps being more intensely felt in the umbilical region, the pains becoming more intense, almost excruciating in some individuals, and at the end of about twenty-four hours being referred to the right iliac region. Palpation in that region is then unbearable.

The temperature in the first twenty-four hours may not be much over 100°, but towards the end of the twenty-four hours it usually reaches about 102°.

In most of the severe types the abdominal muscle and chiefly

the right rectus muscle is made quite tense. The patient, as a rule is constipated, but at times we meet with a case in which there is diarrhea, and movements of the bowels, especially when in the sitting posture, cause intense and excruiating pain. A cathartic at this stage of appendicitis is a dangerous agent.

If the case takes a favorable course, the symptoms, under proper treatment, will become less prominent and more localized and at the end of the third and fourth day the temperature begins to fall, the abdominal muscles become more relaxed, pain is experienced only upon pressure, movements of the bowels, or

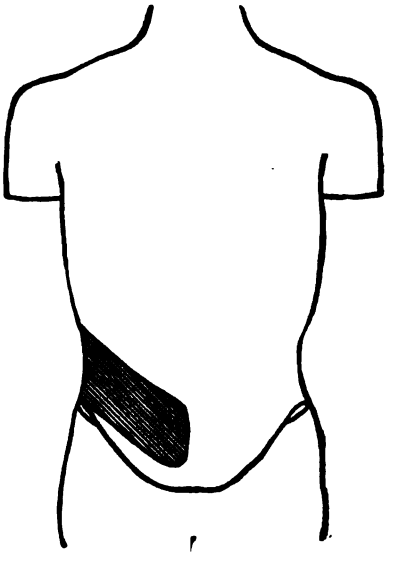

Fig. II.—Shows a band of cutaneous hyperalgesia, as described in the text.

while moving the body; and soon one may be able to plainly detect a tumor in the right iliac region, generally of an oblong or sausage shape.

In the mild cases, one may often make out a swelling about the second day. This peculiar longitudinal tumor is said to be produced by the swollen and indurated meso-appendix, and will gradually disappear as the patient becomes convalescent. In a case of a more severe type, there is usually a large massive tumor brought about by an exudate surrounding the perforated or

suppurating appendix, a kind provision on the part of nature to guard against the infection of the peritoneal cavity (see Fig. IX. 1). Within the wall of exudative matter, there is generally an accumulation of pus, which may be absorbed, and by resolution, in time, the exudative matter may be organized and developed into a fibrous mass in which the appendix is buried (see Fig. V). A case which runs a still less favorable course,—within this wall of exudate a large collection of pus is formed, which can in many cases, be made out by palpation. In such a case, while the pain may have subsided to a great extent and the patient

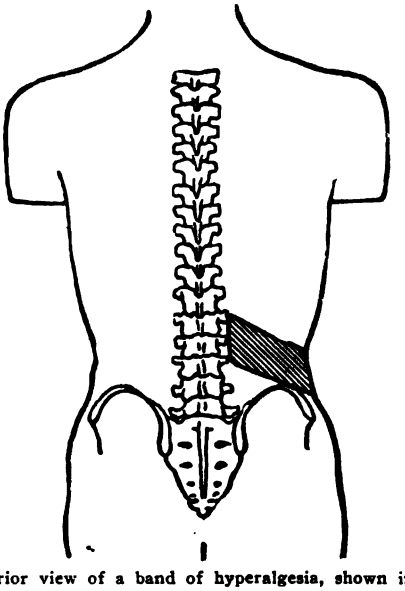

Fig. III.—Posterior view of a band of hyperalgesia, shown in Fig. II.

be at ease when quiet and in a restful attitude, there remains yet the constant rise of temperature, varying from 101° to 104°. If not operated upon this may terminate by rupturing and emptying into the bowels, into the vagina, into the bladder, or, perhaps, into the peritoneal cavity. When breaking into the bowels or into the vagina, the case terminates by convalescence; if into the bladder, it will as a rule produce violent cystitis and if the drain is kept up, it will in a short time produce purulent nephritis. When rupturing into the peritoneal cavity, fatal peritonitis is inevitable.

When a collection of pus ruptures into the bowels or into the vagina, the temperature falls to normal, the symptoms disappear and the case is convalescent. When this flow of pus will take place into the bladder, the general symptoms of the appendicular abscess disappear, but cystitis as a rule follows, although in some cases the bladder symptoms may also disappear in a short time, provided infection does not occur. When the abscess empties into the peritoneal cavity, there may appear symptoms of shock, and the local pains, which have been typical, may now disappear. The cutaneous hyperalgesia has been known to dis-

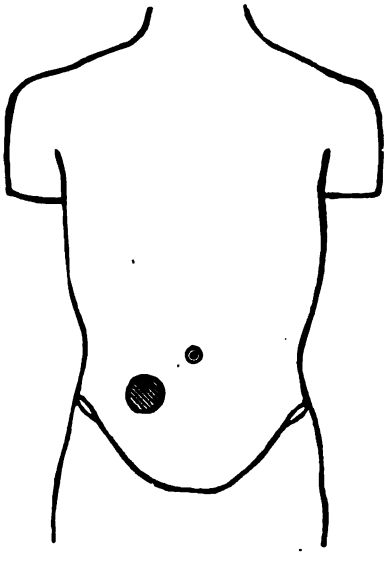

Fig. IV.—A circle of cutaneous hyperalgesia as sometimes found in appendicitis.

appear at once upon perforation of the appendix or rupture of the abscess.

In gangrenous appendicitis the symptoms are similar to those of the severe type of appendicitis. In some cases there are symptoms of shock and there is a low and even subnormal temperature. A number of cases have been reported in which the cecum was displaced to the left side and, of course, in those cases the local symptoms would be to the left.

Dr. Head, some years ago, called attention to hyperalgesia in

appendicitis. This is tested by stroking or gently pinching the skin, beginning in an area of the skin which is not tender and gradually moving toward the suspected tender area. Care must be exercised not to produce pressure of the deep structures and thereby bring out deep pain, by which one may be misled. The usual area of skin tenderness involves a triangle in the right iliac

Fig. V.—Portrays a fibrous mass, which was removed by the author from a case of chronic recurrent appendicitis, in which the appendix, 2, was imbedded. The fibrous mass was adherent to the cecum and colon at surface 3 and 4, and on the opposite side to the parietal peritoneum, and had to be peeled off so that the appendix could be amputated at 1. This case had been diagnosed lead colic for three years. He was a painter. The operation was performed about ten years ago and the patient is now still in excellent health, excluding, therefore, any doubt as to its being of a malignant character.

region, the lower border extends almost to poupart's ligament, the inner nearly to the middle line, the apex to a point a little out-

side of the anterior superior spine of the ilium (see Fig. I and II). Frequently this cutaneous hyperalgesia amounts to a complete band, two to three inches wide, extending from the middle line in front, a little below the umbilicus, to the spine in the lumbar region (see Fig. III). Occasionally in the early stage, one may find the skin tenderness amounting only to a small circle in the neighborhood of McBurney's point (see Fig. IV). Dr. Head has taught for years that this superficial tenderness disappears when perforation takes place. It is stated that this cutaneous hyperalgesia does not vary in the position of the appendix.

Leucocytosis is only a late diagnostic sign and is perhaps of most value when other symptoms are not typical.

Diagnosis.—Appendicitis may be mistaken for gallstone colic or cholocystitis with peritonitis, and, may be differentiated from the latter inasmuch as pain produced by the passage of gallstones is higher up. The pain being in the right scapular region passing round to the epigastric region. The pain is of a more severe cutting type beginning abruptly, and in many cases jaundice appears within twenty-four hours. There are pains produced upon palpation over the region of the gall bladder and absence of pains in the region of the appendix, absence of board-like rigidity of the muscles in the regions of the appendix and recti muscles, absence of fever in gallstone colic in the beginning of the attack, where as a rule, there is a rise of temperature in the beginning of appendicitis.

In cases of cholocystitis with peritonitis there is great pain in the region of the gall bladder with more or less tenseness of the muscular structures in that region, and also rise of temperature, but one may always be able to palpate the right iliac region without producing much pain.

Renal colic is another condition which might be mistaken for appendicitis, when it occurs on the right side. It is differentiated by the peculiar and characteristic pain, which is intense and unremitting, and which is referred to the bladder and genitals. The bladder is irritable and there is a constant tenesmus. The urine will be found to contain blood, which may be detected microscopically, if not by the naked eye. Vomiting is not present, as a rule; the fever is usually absent, and the rigidity of the abdominal muscles is also absent.

To differentiate between acute indigestion and the beginning

of a mild type of appendicitis is frequently a hard matter to do, as in the very beginning of appendicitis it very closely simulates acute indigestion. But it may readily be cleared up by the ingestion of proper remedies for this acute gastric disturbance and by the disappearance of symptoms in the gastric region and the non appearance of symptoms typical of appendicitis.

In women tubo-ovarian diseases on the right side are to be differentiated from appendicitis. This I find in most cases to be

Fig. VI.—This shows a picture of a case in which the author found the appendix flattened and bound down by adhesions in such manner that it was continuous with the logitudinal fibres of the colon, so that at first sight its base could not be recognized at 1; but the end, 2, projecting perpendicular to the surface of the cecum, betrayed the position of the appendix. In the interval between 2 and 3, one may see the fibrous structure binding down the appendix; at 3 the appendix was constricted in a manner so that the lumen was practically closed.

an easy matter to accomplish. By bimanual examination it can usually be determined whether the inflammation or induration and tumification be in the pelvis, and connected to or in relation with the uterus.

Rupture of an extra-uterine pregnancy when occurring on the right side has been taken for gangrenous appendicitis, and may be differentiated by the history of the individual having had symptoms of pregnancy, and not having any temperature or malaise, which usually precede an attack of appendicitis and by the shock which attends the rupture in extra-uterine pregnancy.

Typhoid fever is another disease that has been mistaken for appendicitis and appendicitis for typhoid fever. Typhoid fever begins with a gradual rise of temperature and a longer period of malaise with little or no pain in the iliac region. The patient will bear palpation without much complaint and the general picture of a typhoid case is one that differs greatly from appendicitis, and the experienced clinician will readily differentiate a case of typhoid fever from appendicitis. The use of the diazo-reaction and the Widal test will help to determine the diagnosis of typhoid fever. Without a previous history, it is not an easy matter to differentiate perforation in typhoid fever from perforated appendicitis and gangrenous appendicitis.

Psoas abscess and hip joint disease in which the psoas muscle is involved have been mistaken for appendicitis, and appendicitis in cases in which the psoas muscle is involved has been mistaken for hip joint disease. These conditions may be readily differentiated by the history of the case. Hip joint disease comes on gradually, the pathognomonic symptoms will usually present, namely—muscular rigidity due to reflex spasms, and, therefore, limitation of motion in every direction and absence of tenderness over McBurney's point, and absence of the cutaneous hyperalgesia. The case is that of a chronic condition.

Psoas abscess does not appear abruptly. There are not the intense pains and the general acute conditions that are found in appendicitis, as a rule there is a history of some lesion somewhere along the spinal column.

To differentiate intussuception, one must keep in mind that it is a condition which we meet with chiefly in childhood, that it comes on quite abruptly, without rise of temperature, complete constipation with rectal tenesmus and passage of bloody mucus. If a tumor appears in the right iliac region, it is not painful and is quite movable.

The symptoms of a strangulated femoral hernia in a corpulent individual might be mistaken for appendicitis, since it is not always easy to make out a small protrusion through the femoral ring of an obese person. In this connection one must not forget that coughing does not produce an impulse in strangulated hernia, and that there is no rise of temperature, nor the tenderness over McBurney's point, nor the cutaneous hyperalgesia.

Malignant disease of the cecum or the ascending meso-colon are often mistaken for appendicitis. But, here again there is but little fever, and little pain. The oncome is much slower, there is little or no muscular rigidity and palpation is more bearable.

Perforation of a gastric ulcer might be diagnosed as appendicitis; but here there is usually a history of previous stomach difficulties. The onset of the pain is sudden. The pain is excruciating and there is tenderness and rigidity in the epigastric region, with more or less shock.

Prognosis and Complications.—In no case can one, with absolute certainty, fortell the course and outcome of any given case of appendicitis. Every case is a serious one. It matters not how mild a case may be in the beginning, it may at sometime in its course take a sudden or gradual turn in a very serious direction and end fatally.

Of the complications, as a result of appendicitis may be mentioned, hepatic and subphrenic abscesses, necroses of the iliac vessels, and thrombosis of the iliac vein, compression of the right ureter, pyemia, parotitis, peritonitis, lymphangitis, and septic phlebitis.

Adhesions always follow extensive appendicitis and are the most common of all complications.

If after the fourth day from the beginning of the attack, the case presents a picture of ease and tranquillity, the temperature is declining gradually, the pulse is good and improving, the tenderness and rigidity in the right iliac region is gradually disappearing, the patient has a desire for food and is *not under the influence of morphine;* one then may predict a favorable outcome. But, in the beginning of an attack, one should always give a guarded prognosis.

Treatment.—As a general rule, a patient who is suffering from a severe attack of appendicitis, will sooner or later, be obliged to submit to a surgical operation, either as a life saving

measure, or for the purpose of ending a number of distressing symptoms, which make his existence more or less miserable, due to adhesions and anatomical changes brought about by the inflammatory process of the disease. To this end nearly all surgeons are agreed (see Figs. V, VI, VII and VIII). There is, however, still some controversy as to the "time of election" for operation.

Fig. VII.—Shows the appendix and meso-appendix bound down to the peritoneum and cecum by fibrous adhesions, causing flection at 1. Adhesions are best shown at 3; the end of the appendix at 2.

Some of the foremost surgeons advocate operation as soon as the diagnosis is made, irrespective of the stage of the disease. While on the other hand, equally able, competent and experienced

operators operate only when an abscess formation has developed. These endeavor to carry their patients through the acute attack and operate during the interval, when the patient may be well prepared, and when there is no inflammatory condition to contend with, and the individual's health at, or as near to par, as possible, and when the rate of mortality in appendectomy is almost nil.

There is, however, a class of operators who take a middle stand, operating in all cases within the first twenty-four to thirty-six hours, and thereafter in any case which shows progressive symptoms.

Dr. Ochsner, who stands foremost among those who advise waiting for an interval, and who is a pioneer in the starvation treatment, lays out the following plan of treatment:

"As soon as the diagnosis is made, the patient is turned upon the right side in order to add the weight of the intestines to the support of any adhesions which may exist in the vicinity of the appendix. The head and shoulders are slightly elevated by means of pillows or a head rest, then the pharynx is sprayed with a four per cent solution of cocain in order to prevent gagging when the stomach tube is passed, because this might disturb the adhesions in the vicinity of the appendix. It is well to spray the pharynx repeatedly for a period of about five minutes, permitting the patient to swallow a little of the saliva mixed with cocain in order to anaesthetize the oesophagus to some extent at the same time. After holding the cocain in the pharynx a minute, it is expectorated with the saliva which has accumulated and a fresh spray is applied. As most of the cocain is thus thrown out there is no danger of poisoning. After about five minutes a fairly large stomach tube is inserted and the contents of the stomach siphoned out. The stomach tube should have one or two lateral openings aside from the opening at its end. These openings should be within one or two inches from the end which is inserted in the stomach. This will prevent the end of the tube from becoming closed by drawing into it a portion of the mucous lining of the stomach.

Whenever there is any interruption in the flow, this may be overcome by pouring a little water into the tube and thus dislodging any substance which may have become fixed therein.

After the accumulation which is present in the stomach has

been siphoned out, it is well to introduce into the stomach and then siphon out, a pint of normal salt solution at 100° Fahr. This act may be repeated until the fluid returns clear.

The patient will now be placed in bed with the shoulders somewhat elevated so as to favor gravitation toward the pelvis. He will receive absolutely no food and no cathartics by the mouth. Every four hours he will receive an anema of an ounce of one of the concentrated predigested foods dissolved in three ounces of normal salt solution. I am confident that he will not require any anodyne. The pain will disappear spontaneously since we have removed the cause of irritation by performing gastric lavage. In the meantime we will observe the patient carefully, because it is quite possible that a circumscribed abscess will develop in the right inguinal region. If this should occur, we will simply drain the abscess.

Dr. Ochsner states that by means of this treatment he has been able to cure ninety per cent of his cases of perforative and gangrenous appendicitis. Contrasting the results of this plan of treatment with the radical measures which he followed previous to the adoptlon of the stravation method, he mentions the fact that his rate of mortality in those very dangerous varieties of appendicitis, when he operated at once upon meeting with these cases, day or night, were more than one-third of the number operated upon.

There are, however, other surgeons of large experience who claim a larger per cent of recovery in the perforative and gangrenous varieties of appendicitis, when operating at once without consideration of the length of time passed since the attack. They believe in a rapid operation, drainage without irrigation, placing the patient in the Fowler or semi-sitting position. They place a colon tube into the rectum high up past the sigmoid flexure, at the time of or at the conclusion of the operation. They fasten the tube to the thigh by means of adhesive plaster and inject a half pint of normal salt every two hours with or without predigested liquid food.

This method of procedure in the operations, and post-operative treatment has only been employed within the last year or two and is rather recent, as compared with the starvation method and figures cannot be fairly compared with a parallel and equal conditions of the cases in which the starvation method was employed.

After carefully comparing statistics and the various claims

of the different experienced and reliable operators, together with my own experience, I have come to the following conclusion:

In all cases, if met within the first thirty-six hours of the attack, an operation should be advised at once. In this stage of the disease, inflammation has not extended beyond the appendix. There are no new adhesions and the patient's condition, as a rule,

Fig. VIII.—(Ochsner)—Here we see another condition in which the appendix is bound down to the cecum, causing a sharp flection at 1 and bound down upon itself at 2.

is such that he is able to withstand the operation, and there are no infectious materials within the peritoneal cavity beyond the position of the appendix. The appendix can be totally removed

and a secondary operation can thereby be avoided. In many cases drainage is not necessary. The rate of mortality is very low.

On the other hand, if an experienced operator cannot be obtained (as none but an experienced operator should undertake to operate in these cases) I would advise the washing out of the stomach, as directed above and putting the patient to absolute rest, giving him nothing to eat nor drink, not even water if there is vomiting. As soon as vomiting has ceased, water may be allowed in small quantities. Rather repeat oftener than to give large quantities. But absolutely nothing else to eat nor drink. Giving the patient perhaps a little ice on the tongue. Above all avoid a cathartic as if it were a poison—not even the simplest—give them absolutely nothing to move the bowels, for I believe with many others that the greatest harm has been done in these inflammatory conditions by physics.

Injections into the colon of a quarter of a pint of normal salt with predigested liquid food, or occasionally with egg albumen, repeated every two, three or four hours, will usually cause the pain to vanish, and an anodyne is not indicated. However, if pain continues after the stomach has been cleared of all undigested substances and the patient has been put to absolute rest, an eighth to a quarter of a grain of morphine may be administered hypodermatically; locally an ice bag may be applied, but in many cases, the individual will not bear the ice bag nor the cold. I have been in the habit of gently rubbing over the iliac region, an oil, composed of four parts of oil of gaultheria and two parts of olive oil; then applying over this a light, hot poultice. A few apply plaster of paris to more perfectly immobilize the abdominal wall. Others apply large quantities of antiphlogistine and bandage snugly.

I deem this method of treatment of the greatest importance, especially to the general practitioner, who meets with these cases before the surgeons see them and who is often unable to get the consent of the patient to submit to an operation. By carefully carrying out this treatment many a life can be saved and the patient carried over an acute stage into an interval.

All cases should be strongly advised to submit to an operation during this interval, for this interval an operation is as safe as at any time, as the rate of recovery is almost one hundred per cent.

In cases in which the condition has reached a stage at which

nature has built a wall around the broken down appendix and in this wall an abscess has formed, I would advise the simple opening of the abscess cavity and the drainage of the same without irrigation or breaking down of this abscess wall.

If we meet with a case that has passed the thirty-six hour

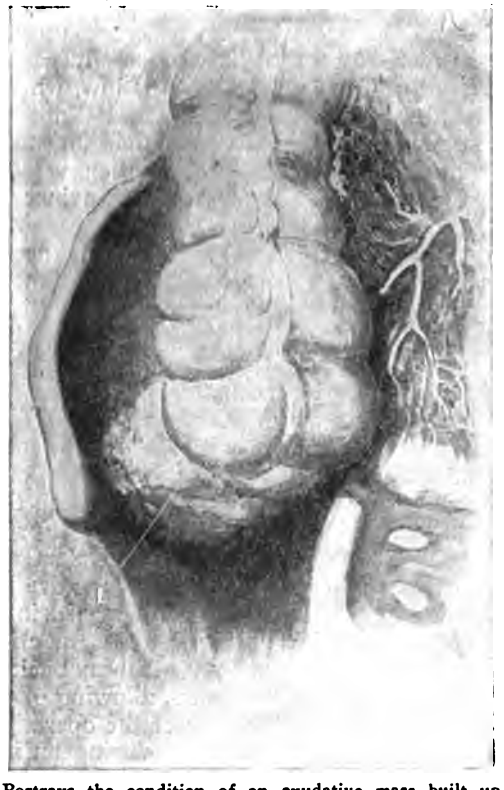

Fig. IX.—Portrays the condition of an exudative mass built up about the appendix, produced by an extensive inflammation and perhaps ulceration and perforation, in which the appendix is encased. This is nature's wall of defense to prevent a further infection in the peritoneal cavity. When operating during the existence of this mass, one will usually find more or less pus. This mass sometimes becomes organized, as in Fig. V.

limit, I favor conservative treatment—Putting the patient to bed in the Fowler position, stopping all foods and drinks, and positively avoiding the administration of a cathartic of any kind, until

the vomiting has ceased, allowing water in small quantities and in general prescribe the treatment which I have previously given, watching the patient closely for the appearance of an abscess.

In the gangrenous and perforated cases of appendicitis, if met with within the thirty-six hour limit, I would advise operation at once, for within this limit, the patient is still in a fair condition to withstand the operation, and there is no general peritonitis, as yet, and the operation is more easily performed than after this limit, and the rate of mortality is low, when the operation is performed by a skillful operator.

There are some operators, who advise closing up the abdominal wound without drainage if the operation is done in this stage; but I have not as yet been able to convince myself that this is a good plan. For many of the infectious bacteria may have been left behind even though the environing tissues were carefully sponged after removing the appendix; and many of these germs are anærobic and if the oxygen of the air is allowed to come in contact with the field of operation, these bacteria will not grow. If more or less irritation should be set up by these bacteria, we have an opening by means of which any toxic exudate may be drained away. I do not dread fistulous complications, nor ventral hernia so much as some operators seem to, especially when the operation did not require a large incision and is done by means of the McBurney operation (see Fig. XI), in which the muscular structures are least impaired by the operation. For drainage, I prefer a rubber drainage tube from about one-quarter to one-half of an inch in diameter, putting on a large aseptic dressing, patient snugly bandaged with a broad binder and placed in bed, in the Fowler, or semi-sitting position with the colon tube in place and the injection of a quarter to a half pint of normal salt with nutritive enemata for from two to four hours, allowing perhaps a little ice on the tongue twenty-four hours after the operation.

The safest time for an operation is during an interval; the patient is well prepared, is in the best condition to stand an operation; requires the least searching and manipulations and, with but few exceptions, only a small incision is required, through which the appendix may be reached; and the abdominal wound may be closed without drainage and the patient will make a more rapid recovery, and pass through a more pleasant convalescence. Other conditions may also be investigated and operated upon at this time. In many individuals the appendix may be reached through an

opening at most any point on the right side of the abdominal wall; and in case of a female patient, in which the appendicular troubles may have involved the right ovary or tube, one may easily operate on both these organs through the linea semi-lunaris. I would, therefore recommend every case in which there was one or more severe attacks of appendicitis or two or more mild attacks

Fig. X.—This shows a picture of an adhesive appendix to the posterior surface of the cecum and colon in a manner as to obliterate the meso-appendix.

to submit to an operation during an interval, if he can be placed into safe hands and good surroundings.

I am quite partial to the so-called McBurney operation (Fig. XI). An incision is made from an inch to an inch and a half

internal to the anterior, superior spine of the ileum to the umbilicus. The incision may be from three to four inches in length down to the aponeurosis of the external oblique muscle. This muscle is then separated by splitting the fibres without cutting. The fibres of both the internal oblique and the transversalis muscles run in about the same direction at this point and are also separated by splitting the fibres without cutting. Transversalis fascia and the peritoneum are next met with. One will now try to determine whether there are any adhesions. These structures are picked up by means of two hemostatic forceps. One in the hands of the assistant and the other in the left hand of the operator, making mild traction. This causes a little ridge between the two forceps. This ridge must not be incised; but the point of the knife is made to "nick" into the sloping surface on the one side of the ridge and if there are any adhesions or if a bowel is picked up with the peritoneum, there will be the least danger of cutting any of these structures below (see Fig. XI—1, 2, 3, 4, 5, 6). I have often noticed that the omentum or colon was picked up with the peritoneum when there were no adhesions, apparently by a sort of suction produced in lifting the parietal structures. As soon as an opening is made sufficient to admit the air, the visceral structures fell back.

If there are no adhesions, one can incise the transversalis facia and the peritoneum about two inches (perferring not to separate these structures from each other) and proceed to reach the appendix. The internal land marks being the longitudinal fibres of the colon, which are grabbed up, and the colon brought out through the incision (the omentum, if overlying the colon, is pushed back of course). The base of the appendix is located in these longitudinal fibres at about an inch from the ileo-cecal junction, which if there are no adhesions can be readily drawn out. The artery of the meso-appendix is ligated close to the ileum. A clamp is then placed onto the meso-appendix about a quarter to a half inch from the ileum and the meso-appendix cut away to the base of the appendix. These forceps are then removed and another strong, narrow jawed forcep is put on the base of the appendix. A purse-string suture is then placed around the appendix into the wall of the cecum, and the purse-string drawn tightly over it. A continued Lembert suture is then run over this purse string and continued up to and including the

point of ligation of the artery of the meso-appendix. This suture brings the edges of the serous covering together and leaves the intestines covered again with serous coating.

After the operation, if there has been no pus nor exudate

Fig. XI.—This shows McBurney's operation of opening the abdominal wall for appendectomy, as described in the text. 1, is the skin; 2, the subcutaneous tissue; 3, the aponeurosis of the external oblique muscle; 4, the internal oblique muscle; 5, the transversalis muscle; 6, the transversalis facia and peritoneum; 7, longitudinal fibres of the colon, the first of the internal landmarks to the appendix.

of any kind, the surface of the gut is sponged off with a dry sponge, or, perhaps with a little normal salt and the abdominal wall closed by tier suture.

If there are adhesions and an abscess is suspected, one will

not enlarge the peritoneal opening any further than to leave space for drainage and the operator may now cautiously push down through the abscess wall a groved director, and he will generally notice the pus exuding at once. He may then cautiously stretch the opening sufficiently to admit a one-half inch drainage tube, and by no means should the adhesions be broken for this is the wall of providence, which the leucocytes have built up as a guard against invasion of infection into the peritoneal cavity. A few superficial stitches only, should now be inserted.

Very frequently one will meet with a mass of exudative matter of a dark, dirty gray and of a soft fragile consistency, easily broken down; and in this mass the appendix is buried (see Fig. IX). And these are the cases which often cause the operator the greatest trouble in locating the appendix, because, the anatomical relations are often changed, the longitudinal fibres of the cecum cannot not be followed and the appendix is turned under and towards the left involving the ileum as well as the cecum. It is often necrosed and cannot be distinguished clearly from that of the exudative mass; and in the more extensive cases, the wall of the cecum and ileum cannot be well distinguished. However, one will always find a point at which the greatest amount, and the thickest wall of the mass exists, and at this point and in this thickest portion of the exudative mass, the appendix is usually found. One, therefore, will first locate, if possible, the ileo-cecal junction and then with the fingers push his way through the greatest mass, and one who has acquired a sensitive touch, will readily notice the difference in the consistency, when he reaches the appendix, which produces a more cord-like feeling than the other amorphus structures. He will now carefully separate out the appendix and there will not be any meso-appendix in such a condition; and yet at times, one will find the remnants of the meso-appendix as a brittle indurated mass, which will hold no stitch and can readily be broken. One may now try to ligate the appendix at its base, or if the base is yet in a more pliable and in a viable condition, one may apply the hemostatic forceps and proceed in the same manner as I have already described. One must not forget to search carefully for the little bleeding arteries, which are often very much enlarged, and may cause considerable hemorrhage, if overlooked. In many cases it is impossible to place any sutures, as the tissues are so brittle the thread will readily cut through. A portion of the cecum is often so com-

pletely necrosed that it will require resection. In no case of this character would I dare to close up the abdominal wound without drainage, for this is the class of cases in which we get our fecal fistulæ.

After suturing the wound, a heavy dressing of sterile gauze and cotton is placed over the wound and a broad binder is snugly and tightly pinned around the abdomen and the patient placed in bed in the Fowler or semi-sitting position.

Occasionally, we have the misfortune to find that an abscess has ruptured and emptied into the peritoneal cavity the contents having spread over the peritoneal structures. Such a case ends fatally invariably, if not operated upon; and the best method of procedure here, will be to place the patient in the Fowler position and irrigate the peritoneum with gallons of hot, normal salt solution, directing the flow of water to the upper region and allowing it to run down toward the pelvis from which it is sponged out. Lift up the abdominal wall and allow plenty of air to enter the peritoneal cavity, but do no mopping anywhere in the upper region of the peritoneum; simply rely upon the normal salt solution to bring away all the infectious matter. The appendix may or may not be sought for and removed, depending upon the condition of the patient, whether or not, he will withstand the extra work required in searching and removing the appendix. The abdominal wound is left open and the peritoneal cavity drained as if it were an abscess. The after treatment is the same as in any other laparotomy with drainage.

To recapitulate, I would summarize with regard to treatment, as follows:

First—Cathartics, manipulations and deep palpations should be avoided.

Second—I would advise every case to be operated, if met within the first thirty-six hour limit, provided the patient may be placed into safe surroundings and into the hands of a skillful operator.

Third—If conditions are not favorable and an expert operator is not at hand, I would strongly advise the conservative method of treatment in the manner I have previously described.

Fourth—In every case in which there has developed an abscess formation, an operation should be performed at once. With

few exceptions, no more should be done than simply draining the abscess.

Fifth—Every case which has passed through one or more severe attacks, and every case having had two or more mild attacks should be operated upon during an interval.

Sixth—I consider Fowler's semi-sitting position of decided advantage during and after an operation.

Seventh—I believe, most of the fistulous sinuses will permanently close under careful management without a secondary operation.

SECTION OF OBSTETRICS

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THE HYGIENE OF PREGNANCY.

R. C. WINTERMUTE, M. D., CINCINNATI, OHIO.

It has been said by some one that "an ounce of prevention is worth a pound of cure", and it would appear that this truth has no more fitting application than to the practice of medicine; particularly in the consideration of the various ills and disturbances that frequently manifest themselves during the progress of gestation.

There is no question in our judgment, but that much of the so-called sickness of pregnancy, pathological conditions that ultimately result in eclampsia or serious consequences during the lying-in or puerperium, as well as numerous features that may contribute to difficult labor or general dystocia may be entirely eliminated, or very materially moderated if care, and the rules of hygiene be properly observed during the period of utero-gestation. Pregnancy being looked upon as a physiological process, often proves misleading to many women, since they are led to believe that every development or symptom, no matter, frequently, as to either the nature or severity, should be looked upon as a natural consequence, of no significance, and from which no expectation of relief is thought of; they fail to realize that the border line between health and disease is not well defined at this time, and that derangements that ordinarily would be given little heed, may, owing to existing conditions, very readily develop a pathological state from which great discomfort, as well as distress of mind and body may follow, to say nothing of dangers that may later result seriously, even threatening the life of both mother and child.

Owing to education and modern methods, women are being enlightened along these lines, and the time is not far distant when the family physician will be early apprized of the condition, and his services engaged to supervise and carry his patient safely through her pregnancy to the end of term,—encouraged and prepared for a normal labor, followed by an uneventful puerperium.

Probably during the early weeks of pregnancy, or until certain symptoms are in evidence no attention or treatment, under ordinary circumstances will be called for. Not until the latter part of the first trimester will there be sufficient development to require any special advice along the line of careful hygiene.

In looking to the care of a normal pregnancy, diet is probably one of the very first requisites to be observed; the preferences of the patient should be considered in this particular, to some extent at least, probably as far as compatible with good judgment.

Frequently the nausea, sickness and irregularities of digestion so common during the early weeks of pregnancy, can be very satisfactorily managed by thus consulting the desires and idiosyncrasies of each case, so long as they do not prove injurious.

Quality rather than quantity, together with articles that are easily digested and nutritious, should govern one in selecting proper foods.

Prochownik says a sufficiently liberal diet contributes to functional activity, gives a healthy tone to the blood vessels and tissues and diminishes the susceptibility of the nervous system to pain and reflex irritation.

A suitable diet also during pregnancy is obviously essential to the normal development of the foetus in utero; too liberal diet however may result in over-development of the fœtus and consequent difficult delivery; this might be well to remember, in patients who have previously given birth to excessively heavy children; while on the other hand, a restricted diet, it is claimed, tends to lessen the size and hardness of the child's head and to facilitate the birth.

Regularity of the bowels is an important matter to look after during pregnancy; normal intestinal peristalsis is usually disturbed, and persistent constipation follows; proper food, fruits, vegetables, etc., may be all that is necessary to correct the trouble; again some of the mineral waters will be found useful; of medicines the small aloein belladonna and strychnine pill or some

preparation of cascara sagrada will prove efficient. Drastic cathartics are inadmissible.

Judicious exercise throughout the period of utero-gestation should be advised, it is in line with good hygiene and conduces to easy and normal labor. It should be moderate and largely out of doors, walking, driving, or light physical exertion short of exhaustion will usually be found serviceable.

Rest also is a feature that should not be lost sight of; an abundance of sleep is essential for the welfare of the pregnant woman, eight to ten hours through the night, and a mid-day nap should be advised. Dress is a matter of more than ordinary importance. Clothing should be of material to insure comfort and sufficient warmth of body, and be so adjusted as to avoid undue pressure upon the developing uterus, chest or abdomen. The skirts should be supported either from the shoulders or a waist, and not dependent on the hips. Corsets should be worn loosely if at all, and during the latter weeks of gestation if not wholly discarded must be of the abdominal variety, so arranged that the pressure is upward in the way of a support. Neglect in this matter,—in which close fitting articles of clothing are persisted in, impeding the growing uterus, often results in albuminuria and uremia. Elastic garters constricting the legs, should be displaced by hose supporters.

Regular and frequent bathing, especially as pregnancy advances, should not be neglected. The bath should be hot and the skin rubbed vigorously; by this means much of the excess of excrementitious material is eliminated, and overworking the kidneys lessened. Vaginal douches should be used guardedly, and only as indicated.

Late in gestation, supporting the large and pendulous breasts will prove a source of relief to the patient, as well as allay much of the nervousness that is present at this time.

It is deemed expedient by some obstetricians to apply some agent to the nipples, that they may be hardened, and rendered less sensitive preparatory to lactation; glycerole of tannin may be used for this purpose, and will usually prove satisfactory.

The welfare of every pregnant woman would be better conserved if complete abstention from sexual intercourse were practiced; since such a course, however, would not be followed in most instances, moderation and reasonable restriction should be advised. To over-indulgence during this period much of the ner-

vousness and congestion of the pelvic viscera, as well as abortions may be attributed; likewise coition late in gestation may be the source of infection from which subsequent sepsis develops.

The physician should exercise careful vigilance relative to kidney function. In every case the urine should be carefully analyzed at least once a month up to the period of quickening, and every week during the remainder of gestation. A sample should be taken from the entire amount passed in a given twenty-four hours, in order to arrive at definite conclusions. In many cases albumen will be recognized, while it may be present in large quantities without untoward circumstances, albuminuria, however, must be regarded in most instances as an important precursor of an existing toxemia that may manifest itself later in eclampsia. If with the presence of albumen there be inefficient action of the kidneys, a puffed and swollen state of the face and extremities, with evidence of hydræmia, impaired vision, headache, dizziness, a tendency to faint, and so on, the prognosis should prompt the physician to institute immediately a heroic pre-eclamptic and prophylactic treatment. Probably one of the surest ways to control the production of toxins is to place the woman upon an exclusively milk diet, or as nearly so as possible, at any rate meats and heavy articles must be excluded. Agents to increase excretion are demanded. Sulphate or citrate of magnesium should be continued in moderate doses. Large quantities of water should be advised in order to flush the kidneys and thus aid in the further elimination of the toxic material; liberal potations of Poland or lithia water answers well. Hunyada water in suitable doses will also stimulate the action of the kidneys as well as the bowels. The infusion of digitalis will likewise prove most efficient at this time as a diuretic. To solicit free action of the skin the hot pack or hot bath will frequently be sufficient. Where there is continued insufficiency of elimination, however, jaborandi may be thought of as one of our most active diaphoretics, as well as a diuretic. Glonoin will also be found a useful diuretic. The manner of treatment prescribed immediately, on the first manifestation of symptoms, will often prevent the later development of eclamptic paroxysms, or at least very greatly modify their severity.—" 'Twill be the ounce of prevention."

The surroundings of the woman throughout gestation should be pleasant and agreeable and as free from uneasiness, worry and

apprehension as possible. Her likes, dislikes and desires should be indulged to as great an extent as consistent with her general welfare, and kept in a cheerful, happy and hopeful state of mind. A few weeks before the expected end of term it is advisable to make a careful examination by external palpation by means of which the viability of the child may be noted, whether it be a single or plural pregnancy, the probable position and presentation of the child, as well as a partial manual pelvimetry, if deemed advisable a vaginal examination may also be made.

It may serve a good purpose in some cases to furnish the patient with one of the well written works on Tokology; this may be read during her leisure hours and will not only enlighten her as to her condition, but enable her to more carefully follow the advice and direction of her physician as well; especially is this true as to the primiparous female.

DISCUSSION.

Dr. W. B. Church said it was important in those cases where there was any suspicion that the position of the child was not natural that an examination be made during the last weeks of pregnancy, and an effort be made to discover the exact position. Sometimes the position could be corrected by external manipulation under an anesthetic. If version could be accomplished it would greatly obviate the danger of asphyxia at birth. If there were reasons for fearing that the labor would be severe and protracted it was his opinion that labor should be induced in the most natural manner possible at the eighth month. Dr. Goss said he would urge the importance of analyzing the urine during the gestation period, especially if there was dizziness, spots before the eyes or headache. He did not consider a normal breech presentation demanded any interference. It was shoulder or other of the severe and rare presentations. If care be taken, he thinks there is no danger in breech presentations. He recommended salt water in albuminuria as much as the stomach will tolerate, and a good, generous, but mild diet.

PRACTICAL OBSTETRICS.

E. B. SHEWMAN, WAYMANSVILLE, INDIANA.

Ever since the dawn of commercial strife, we have been living in an age of progress, where man is able to grasp great industrial problems and solve their intricacies, not alone by theoretical knowledge, but principally by his practical knowledge. While the former to a marked degree is necessary, the latter is absolutely essential to insure success. The practical in medicine, should of necessity predominate at all times, especially in surgery and obstetrics. It is well for the obstetrician to possess a thorough knowledge of the theory of obstetrics, but at the bedside he must use his practical knowledge.

The first thing of importance to the obstetrician is to ascertain the existence of pregnancy, which knowledge is not readily obtained in all cases, and the physician must be guarded in his conclusions. When in doubt as to pregnancy, examine and re-examine, exclude and re-exclude, before expressing an opinion, for "Silence is golden" until you have fully determined the conditions.

All signs of pregnancy may be negative or positive. The important diagnostic points for consideration are, first, mammary changes; second, fœtal movements; third, softening cervix uteri; fourth, ballottement; fifth, auscultation.

Mammary changes in primiparæ are important, but unreliable in multiparæ. Fœtal movements, while valuable, are very unreliable in women of a nervous temperament, and those who are anxious to be pregnant. Gaseous distension of the bowel may produce sensations likened to fœtal movement, for the patient may wish to deceive the physician by producing involuntary intra-abdominal movements, when pregnancy has advanced beyond the fifth month, is of a peculiar velvety softness. While this is a strong corroborative sign, it, in the absence of other signs, would be unsafe, as other intrauterine causes may produce a like condition.

Ballottement is of great value, when able distinctly to produce same. Where all other signs are inefficient, or fail to assist you in the determination of pregnancy, then auscultation, by which you can hear the fœtal heart sounds, is perfectly reliable.

We are to be cautious as to the existence of pregnancy when

the patient is approaching the menopause. Do not give it as your opinion that the sudden cessation of menstruation is due to the beginning of menopause, for, at the expiration of four or five months you or some other physician may be called upon for an explanation of existing conditions.

The diseases of pregnancy have tasked the skill of every physician of experience, and many have fallen by the wayside in an endeavor to control the persistent conditions that accompany many pregnancies. Especially is this true of gastro-intestinal derangements. When nausea and vomiting are excessive and long continued, they may lead to serious results, the vomiting being reflex as the result of irritation of the sympathetic nervous supply of the gravid uterus. We are to treat this lesion along practical lines by treating the seat of disturbance, and not the effects; therefore, it is useless to administer medicine per mouth. Suspend the action of the stomach by not permitting anything to be taken into it for twenty-four or thirty-six hours.

Where the patient has a normal condition of the heart, and where very little debility results from persistent vomiting, I formerly painted the cervix uteri with a two per cent solution of cocain hydrochlorate, but in the past three years have discontinued the cocain, and use instead a four per cent solution of chloretone, which can be used, regardless of the condition of the patient, without causing any ill effects. Where the cervix uteri and vaginal tissues are hot and dry, showing uterine congestion, the patient is given a hypodermic of morphia with atropine. If constipation is present, the patient is given a high enema of saline solution, using the long colon tube. Counter-irritation over the spine about the upper sacral region may be produced, but I do not deem it necessary when the treatment outlined above has been adhered to.

Albuminuria of pregnancy results from the gravid uterus, creating mechanical pressure of the vessels supplying the kidneys, which causes congestion of the venous circulation of those viscera. The presence of albumen is not always evidence of eclampsia in pregnant women, but it is evidence of toxemia, and should be regarded as a danger signal whenever present. During the last months of pregnancy it is the duty of the physician to analyze the urine at least once every two weeks, to determine the presence of albumen, and, if found, increase the secretion of urine by administration of saline diuretics, maintain a soluble

condition of the bowels, produce diaphoresis by vapor bath, and use cupping over the loins to lessen renal hyperemia.

Lesions of the nervous system are frequently met with in pregnancy. The most common are irritability of temper, mental despondency, and dread of labor. Here then specific medication plays an important part. Pulsatilla, cannabis indica, hyoscyamus and mitchella are employed with good results.

Pruritis of the vulva has been one of the most persistent conditions I have ever treated. As it is frequently met with along with leucorrhœa, the treatment should be directed at the cause; but in two exceptionally severe cases that came under my care, no leucorrhœa existed, and the patients recovered when pregnancy advanced to that period where reflex irritability had subsided. An ointment composed of boracic acid 15 grains, salicylic acid 15 grains, cocain 5 grains, lanolin one-half ounce, will give relief. The cervix uteri should be painted with a four per cent solution of chloretone.

While there are many other lesions of pregnancy, the ones enumerated are the common and severe ones the physician has to deal with.

The pre-parturient period, especially that occupying the last eight weeks of pregnancy, should have the close attention of the physicians. About 65 per cent of all cases do not receive this attention even when the physician has been engaged months before hand, for such a large proportion of physicians study surgery and do little actual work while all physicians practice obstetrics and study very little of its phenomena. The ignorance of the act of obstetrics among physicians is appalling. So many physicians look upon pregnancy as a physiological condition, and suppose that anxiety, dread, fear of pain are necessary accompaniments of every pregnancy and need no attention, depending on nature to right the wrongs without their aid.

I consider it good obstetrics, when engaged previous to labor, to prepare the patient for the trying ordeal she is to pass through, and for this purpose I give specific mitchella three times daily for a period of six weeks before delivery. It often works a remarkable change, quieting the nervous system, removing reflex conditions, exerting its influence in correcting urinary irritability and placing the patient in a state of ease. When labor manifests itself, dilatation of the os is rapid and thorough, uterine contractions strong and effectual, and the patient does

not suffer from the painful contractions, as those do who have not taken this remedy. Its effects do not end with labor, but it aids in promoting a rapid and perfect involution.

The patient should be instructed to take a general bath once a week, using the vaginal douche containing one dram of boracic acid to the quart of water. During the last three weeks of pregnancy, the enlarged abdomen and external organs of generation are anointed with lanolin every third night.

When called to a case of labor, the physician should respond promptly, for in so doing he may with little difficulty be able to correct any wrong that may exist. Chapter after chapter has been written on the management of labor, but after all each case is a law to itself and must be managed as the case at issue may demand.

On entering the room, ascertain the character of the pains, as to frequency, regularity and severity, as to the duration of labor, and whether the membranes have ruptured or not.

With this knowledge, call for warm water and towel, and wash your forearms, hands and nails thoroughly, using asepsin or ivory soap. These precautionary measures are equally as effective as dipping your hands into five or six prepared solutions of bichloride, as was recently advised by a theoretical obstetrician, for while you are doing the antiseptic act, the patient may be delivered, and the doctor only half through dipping. In over six years' practice, asepsin and ivory soap have served me well, attended only with happy results.

After cleansing your hands, you are ready to examine the patient. Drawing your chair close to the edge of bed, and (with your right hand previously anointed with vaseline) gently lift the bed covering and carry your hand beneath, being careful not to expose the patient.

After carrying the hand beneath the flexed thigh, with the index finger enter the vagina, carrying the finger from before backward until the os uteri is located. Note the character of the pains as to their influence on the uterine tissues, whether they are true or false; if the former, note the extent of the dilatation, condition of the os uteri, whether rigid or yielding, the edges thick or thin, the tissues hot or dry, or, tender and painful. Determine at this time, if possible, the presentation, whether occiput, breech, face, or otherwise. If occiput, do not give your patient undue pain by trying to determine the position, whether right or left

occiput, anterior or posterior; it is not necessary or requisite to a favorable termination of labor. The graduate, fresh from theory, trys, and thinks it is essential to know, but soon learns better. I venture the assertion there is not one physician in every ten that can determine the position of an occiput presentation.

If the patient is in the first stage of labor, she may sit up or walk about, the physician making an examination every ten or twelve pains. If on examination the os is found to be dilated to the size of a half-dollar or larger, do not leave, unless remaining within calling distance.

The physician should be ambidextrous, able to examine and definitely determine existing conditions with either hand. During the first stage of labor, see that the bed has been prepared; remove a feather bed; place oil cloth on the mattress; cover with a sheet upon which place a folded quilt, and, by using the Kelly pad, at the termination of labor, with the removal of the quilt, the bed is dry and clean.

When the second stage of labor is on, the patient is placed in bed, and the physician should give his attention to every detail that will place his patient as comfortable as she can be placed. Do not sit in an easy chair and read or sleep, but care for the patient and she will honor and bless you for so doing. Examine every six or eight pains, and as the presenting parts, sweep the floor of the pelvis and engage against the perineum, have an attendant to wring cloths out of hot water (not hot enough to scald) with which support the perineum until the head is born. The hot cloths not only support the perineum, but they relieve œdema of the vulva, relaxing the perineum so that it will yield to a marked degree before rupturing, thereby reducing laceration to a minimum.

After the birth of the head, disengage the cord if found about the neck of the child, and with the index finger of your right hand clear the mucus from the mouth and throat of the child. As restitution takes place and pains come on, place your left hand over the uterus, and as the body is born grasp the uterus firmly to prevent inertia, should it occur.

After birth of the child, when the cord has ceased to pulsate, ligate, using a very heavy cord, such as candle-wick, or a heavy linen thread doubled. A single thread is likely to cut the cord when drawn tightly, causing hemorrhage, and the child's life may

be placed in jeopardy before the physician realizes what has happened.

After severing the cord, pass the child to an attendant, with instructions to anoint with lard and wash, washing the eyes with a previously-prepared boracic acid solution.

Now give your attention to the mother. With your left hand grasping the uterus, use Crede's method in favoring uterine contraction; with your right hand grasping the cord, produce mild traction. Do not be in a hurry to deliver the placenta. Consume fifteen to thirty minutes in delivering. Go at it carefully, and you will have no reasons to regret your action.

After cleansing the bed and changing clothing of the patient, shall we, or shall we not, use a bandage?

Yes; when properly applied and kept so; when the patient has a pendulous abdomen in which the abdominal walls do not give proper support to the enlarged uterus; when the patient suffers with weakness and pain of the back, the bandage being a support which gives relief to a marked degree.

Do not use bandage when it cannot be properly applied, and remember that it is not always essential in primiparæ. Apply, however, when the patient requests you to, although a large per cent. get along just as well without. Therefore, I do not always consider it of importance during the post-parturient period.

Examine the perineum to determine if laceration exists; if so, to what degree; and if beyond the first degree, repair at once. Do not use a douche. unless absolutely necessary, for nature will care for the vaginal tract.

The physician should not leave the patient for at least an hour after delivery. Before leaving, examine the patient thoroughly. See that the uterus has contracted, and that inertia does not exist, or rather a tendency to inertia. If such is the tendency, the pulse will exceed 90 per minute, and the physician should not leave, for hemorrhage is likely to occur at any moment. Should hemorrhage occur, Crede's method should be used, grasping the uterus firmly and with a rotary motion over the fundus of the uterus excite contraction. Internally give tinc. cinnamon, quinine, erigeron and ergot. The latter remedy at this time can be employed with some degree of safety, but during labor should not be employed, during which time the indicated remedy will always give the desired result, whether it be macrotys, gelsemium, lobelia or quinine, and no ill effects will follow its use.

Before departing, give the patient some good advice, by instructing her to avoid getting up too soon, it being better for her to stay in bed ten days to two weeks, and especially to avoid any over-exertion or heavy lifting during the first six or eight weeks, during which time she should lie down two or three times a day; and that if she violates these rules she may subject herself to a sub-involution with all its aggravating symptoms.

We, as physicians imbued with national pride, who wish to maintain the strength and integrity of this nation, must look to the betterment of womankind, caring for the mothers of this country, maintaining their strength and health during the pre- and post-parturient period, that they may usher into this world offspring, strong and healthy, inheritors of a strong and healthy body, and may the "World not grow wiser and weaker," but "wiser and stronger."

DISCUSSION.

DR. PERCE:—In this paper there is nothing to criticise, but something to add that will be beneficial. I want to say regarding the practice of obstetrics that it is due every physician that each patient should have a nurse—a good first-class nurse. There is nothing in my estimation that requires better attention than this. Where they tell you "Mother is going to take care of me," I would rather have the mother a hundred miles away, as it is better for the patient and myself, as a rule. Pregnancy is a physiological act, and the woman who is pregnant should not be sick. If the physicians of today would thoroughly instruct their patients it would be very much better at the time of the culmination of the pregnancy, and I believe the people should be educated to see that it is not necessary for a woman to be sick to bear a child. It will not only shorten labor but make it easier during the time and the after-effect will be better. I am heartily in accord with the suggestion in regard to furthering the interests of motherhood in our nation. We must for the sake of the nation preserve the health of the nation's mothers, that they may rejoice in the child God has given them.

DR. PICKETT:—Let us not forget the wonderful effect of suggestion. Your every move in the lying-in chamber is suggestive for good or bad. Be cheerful. Carry in with you a flood of sunshine.

DR. MCINTYRE:—Every man has an experience of his own,

and no two alike. If the doctor had been with me in some of my cases he would think they needed more than a trained nurse. I have had women sick from 12 o'clock noon until 2 o'clock the next day without care. I don't know what many of these people need most. They were far from having a trained nurse, and it is difficult to educate them.

THE PHYSICIAN'S DUTY DURING PARTURITION.

R. E. HOLMES, M. D., HARRISBURG, PENNSYLVANIA.

It is not my intention to discuss abnormal presentations and the many other abnormal things that come up during labor; but what to do and how to do it, during normal labor, is what we all should know. We often have splendid opportunities to weigh and study these different points of our duty. Our patients will often relate what the previous doctor did, and its results, i e., Dr. B. was called for me last confinement, and he laid on the couch and slept and did not come to assist me, till the nurse told him he would have to come and help me, as I was suffering terribly; when he did come, the head was born and I was bady torn. I have not been well since. Dr. H., who is a very busy doctor, delivered me of my little boy. When he examined me, he said he would have to give me some assistance, so when I awoke my child was beside me. I did not suffer much pain during that birth, but I suffered afterwards; I was confined to my bed for three weeks and did not get well till the doctor took me to the hospital and had the neck of my uterus sewed, which was torn by the boy's head being so large (?).

Study your case, relieve and assist wherever you can, let your patient know you are willing to help her, but must use discretion, and she will ever sing your praises.

Some doctors will say, Do not interfere, let nature have a chance; others will advise to roll up your sleeves and go to work and give the suffering woman assistance.

I think it is generally conceded that we do not do enough at the proper time. We are called in to see Mrs. A, who is supposed to be in the first stage of labor. Who has always proved herself congenial. We find her in such agony, that she is tossing herself from one side of the bed to the other, or walking very

rapidly over the floor and will address us by, "Oh. doctor, I have such continuous pains all over my abdomen. Can't you relieve me?" We prepare our hands, examine her and find the os dilated about as large as a half dollar. With walls thick and rigid. Now will we roll up our sleeves and go to work? No, we will give her a large dose of Dover's powder to stop all pain. Then go back to our office, leaving instruction to send for you when the pains start again, and come on periodically. When you go back and examine her you will find the os relaxed and dilating nicely, and the labor will go on very satisfactory. The ipecac relaxes and the opium relieves the wild pain.

Now, we are called in to see Mrs. B., and she will say, "Doctor, the water broke yesterday p. m. and I had just enough periodical pain last night to keep me awake, and I have been having these pains all day, but they appear to be leaving me." You make your examination and find the os dilated larger than a half dollar, no sac of liquor amnii, the walls of the os thin and tense. What shall we do now? Give a uterine stimulant, likely caulophyllum or quinine, to start the pain. If you give quinine, get ergot ready to give as soon as the child is born or you may have severe hemorrhages.

After you have the pains started and they get very severe and our patient screams and seems scarcely able to bear them. then is the time to roll up your sleeves and go to work, call for a deep goblet, stuff a handkerchief in it, sprinkle some chloroform on it, then let one side of the bowl of the goblet rest on the patient's nose and the other on her chin; let the patient hold the goblet herself. When she has enough, it will fall from her hands. When she begins to complain, sprinkle a little more chloroform in the goblet and let her hold as before. While she is doing this call for some clean lard, mix some belladonna and lobelia in it, then put some on your index finger and sweep it around the os, and you will soon have it dilated; then if the pains are not great enough to expel the child, place the forceps and deliver.

There are some still that object to the use of anesthetics: I have had very satisfactory results, with no bad ones, and I know I have saved a great deal of suffering. I do not advocate using chloroform where labor progresses nicely, but just where it is indicated, i. e, where we have a very sensitive rigid os, or where there is a sore, sensitive part anywhere along the outlet. Mrs. H. came to me saying she was pregnant and that she had a

tumor in the vagina. When I examined her I found a cauliflower growth at the meatus of the urethra. When she was confined the labor progressed very nicely till the head came down to the fungus growth, then she began to scream with pain. I immediately put her under an anæsthetic and delivered her.

I do not encourage forceps in all cases, but I use them when they are indicated, i. e. If the woman has been exhausted by the labor and you cannot stimulate the uterus to expel the child, and being properly dilated, apply the forceps and deliver.

If we have puerperal convulsions, dilate and deliver with the forceps. Sometimes we will have a case where the neck is relaxed and you can open it up as if it was rubber and feel the head high up in the uterus, which will oscillate almost like a pendulum, the woman appears to have good pains and yet is unable to bring the head down to the lower strait and seems with a couple strong pains the child would be born, apply your forceps and deliver and you will find invariably a cord around the child's neck two or three times and the placental end of it so short that it would not permit the head to lodge in the pelvic opening. Some advise the forceps where we have placenta previa. I prefer to pack the vagina with a roller bandage and let the patient expel it with the head of the child.

What I want to impress on my brother physicians is to be wide awake, energetic and use good judgment, for if you do not use good judgment and study each patient as you would study a book, you have missed your calling as an accoucher or a physician. If your attention is not required elsewhere, do not hesitate to sit down on the foot of the bed and allow the woman to rest her knees against your shoulders, take hold of her hands and support her for a few pains (if you do not have stirrups) and give her an encouraging talk. Do not sit back with your arms folded and tell vulgar stories. If the child is born and the nurse has not arrived, after you have the mother attended to and comfortable, do not hesitate to ask for an apron to put on, then take the child on your lap, anoint it well with clean lard, taking soft cloths to wipe it clean and dry, dress it in old clothes or put a diaper, band, and a little shirt on it, and wrap it in a blanket and leave instructions for it to be washed and dressed the next day. By proving you are ready for all emergencies, the mother will never tire praising you.

THE OBSTETRICAL PERINEUM.

LYDIA ROSS, M. D., WATERTOWN, MASSACHUSETTS.

The general practitioner is frequently reminded in his obstetrical and gynecological work of the importance of the perineum. It is estimated that notable lacerations of the pelvic floor occur in about 30 per cent of term labors in primiparæ, and nearly one-third as often in women who have borne children.

The most common causes of perineal tears are: precipitate expulsion of the head, relative disproportion between the fœtal head and the vulvar orifice, rigidity of the perineum, and faulty mechanism which presents unfavorable fœtal diameters.

The prevention of tears should begin during pregnancy by getting the patient into as normal a condition as possible. Certain types of tissue predispose to rupture. Occasionally the cervix or the perineum or both will tear with a relatively small fœtus and moderate pains, because the tissues lack integrity and give way like the worn and rotten fibers of a fabric. Careful study may reveal a latent syphilitic or other constitutional fault which would have yielded to ante-partum treatment. Again, a robust woman, with strong, hard muscles, suffers a laceration in the inelastic, resisting perineum which finally breaks down before the powerful action of the expelling muscles. Here exercises which cultivate flexibility of the body, a restricted or less concentrated diet, and means to promote elimination of waste, especially renal, will tend to avoid the stuffy, inelastic flesh which tears rather than stretches. Selected pelvic tonics are valuable in coördinating the nervous forces and stimulating nutrition to also increase the integrity and elasticity of the muscles and fascia of the pelvic floor. Daily massage of the perineum with oil or absorbable ointment—not vaseline—may nourish and relax rigid structures which lack the normal, local growth and softening, common to the latter months of gestation. Sitz baths of suitable temperature favorably influence the nervous system as well as as the entire pelvic circulation and nutrition. A wholesome regime of bathing, diet and general mental and physical hygiene will aid the patient in avoiding much suffering which artificial conditions of living contribute to a physiologic process.

During delivery, it is well to bear in mind the structures of the pelvic floor which are composed of two muscular layers. The

upper layer is formed by the levator ani and coccygeal muscles on either side, the lower layer by the sphincter ani, transversus, perinei, ischio-cavernosus and constrictor vaginæ. The internal pudic vessels and nerves, much cellular tissue, the pelvic aponeurosis, an intermuscular aponeurosis, and the external integument complete the floor. The foundation of this structure is the levator ani, which arises partly from bone, but mostly from fascia along a line from the body of the pubic bone to the ischial spine. From the front and sides of the pelvis, the fibers of the irregularly fan-shaped levator ani on each side converge to unite in the perineum and at the sides and back of the rectum, forming the greatest part of the sagging pelvic floor. The front levator fibers run backward to the center of the perineum, surrounding the vaginal opening; the rear fibers pass mesially to the coccyx, while those between front and back, constituting the bulk of the muscle, course toward the middle line to be inserted into the anal wall and into a median raphe in front of and behind the canal.

The perineal muscles are peculiar in being inserted by one extremity into tendinous structures and fascia, and also in having their rather indistinct fibres mixed up with a considerable quantity of elastic dartoid tissue. These facts account for the possibility of extreme distension, without laceration, during labor. The normal position of the levator ani and adjacent fascia make these structures important supporting factors in preventing perineal relaxation and pelvic prolapse and it is upon them that the weight of pressure and the excess of dilatation falls during the exit of the child. As the oncoming head bulges the perineum outward, the elongated rear of the muscular floor and the gaping anus show nature's method of thoroughly stretching the coccygeal muscles and the posterior and lateral fibers of the levator ani. The anterior fascia and the front levator fibres which surround the vaginal opening escape positionally an equal amount of stretching at the same time, though the greatest amount of dilatation must finally occur here to make the opening sufficient for fœtal exit.

It is needless to rehearse here the mechanism of labor, as this ground is already well covered by the text-books. Obstetrical anæsthesia is useful in preventing a too hasty delivery by modifying the expelling power of the abdominal wall and relaxing the perineal muscles which are also voluntary. The main-

tenance of flexion of the head followed by slow extension in occipito-anterior position, is not to be forgotten. When the head appears at the vulva, it can be steadily pushed back at the close of each pain in the reversed plane of the pelvic outlet. The readiness with which it recedes indicates that the bony pelvic canal has completed the shaping of the head. The resulting relief of the muscular floor from continuous pressure of a foreign body, modifies the imperative vaginal tenesmus and voluntary bearing down, which combine to offer a resisting outlet and a force which precipitates expulsion. The circulation of the perineum is also benefited by the intermittent pressure and the mother avoids the exhaustion of prolonged effort, and the suffering of unremitting muscular tension.

The authorities advise the delay of the head until the muscular structures of the perineum have relaxed as normal tissues must finally do. No amount of pulling of the perineum forward or of supporting it laterally will replace the inevitable stretching of the introitus. So that the best way to protect the perineum is to relax and stretch it. What the pains do by to-and-fro movements and pressure of the head to overcome the resistance of the pelvic floor can be deliberately anticipated by the obstetrician before the head appears.

After the head has engaged in the pelvic cavity, and as cervical dilatation progresses, the recurrent administration of the anæsthetic will usually modify the acute suffering from the pains and by dulling their sharp edge, often increase the inefficient voluntary efforts of the patient. At this stage my custom is to insert two or three fingers well into the vagina and keeping time with the pains, the extended fingers are swept from right to left and *vice versa.* The entire structure of the introitus is thus stretched with a firm, even, graduated pressure out toward the sides and back toward the coccyx. At first, the increased resistance which may be called forth from the levators suggests the way in which the head really stimulates contraction of the pelvic muscles which is a factor in producing lacerations where precipitate delivery does not permit the muscular resistance to be overcome. The continuance of this maneuver as labor proceeds will usually result in a distinct and even relaxation and stretching of the tissues into a condition most favorable to a delivery without laceration. The patient does not usually complain of additional discomfort to the general pain, but often feels that she

is getting the desired help which the parturient woman hopes for from her medical attendant.

Grandin and Jarman, the authorities who mention this stretching of the pelvic muscles, object to it as leading to increased uterine action and to spasm of the muscular structures of the floor. If, however, the maneuver is begun after the head is in the pelvic canal, the increased uterine action, which is often desirable, may, if too severe, be modified by additional anæsthesia and graduated pressure of the fingers until the first resistance of the perineal tissues is overcome.

The reflex spasm of the muscular floor is no more pronounced than it is where the stretching is done by the head at the pelvic floor, when the dilatation cannot always be so deliberately handled. I have not found this objection a practical contra-indication. Any reasonable increase of uterine action can only result in hastening the labor by a more rapid shaping of the head which process is not materially aided by the muscular pressure at the pelvic floor. The capacity for relaxation of the perineal tissues is well shown in gynecological operations under surgical anæsthesia. Here the striking lack of tension in the introitus of the non-puerperal woman suggests the greater possibilities in the enlarged and softened tissues of the obstetrical perineum. Thus prepared in advance of the head, the perineal tissues will have lost their excess of irritability which reacts into a resisting and persistent contraction that leaves the insufficient vulvar opening more liable to laceration. Furthermore, the perineal structures are not only relaxed but stretched. The head has more room to recede between the pains which relieve perineal pressure and lessens the reflex impulse of powerful bearing down efforts. Manipulations to control the too rapid advance of the head are also more successful, especially if aided by sufficient anæsthesia. This manual treatment of the perineum is not meddlesome, but an imitation of nature's method, which would doubtless be quite as successful unaided if she were given ideal physical conditions to handle.

THE MODEL OBSTETRICIAN.

NANNIE M. SLOAN, M. D., LATROBE, PENNSYLVANIA.

I presume every practitioner thinks his or her way the best in the management of a case of confinement. Perhaps they were at one time, but I think a great many grow careless and neglectful in time. They have always had simple cases to deal with and have been successful.

It no doubt would be a good thing for physicians, at the outset of their career, to have a few difficult cases of labor, as in this way they would be impressed with the seriousness of the work, and ever after surround their patients with all known precautions for their immediate and future welfare. The mothers of past and present generations have not and do not now receive the attention due them. But the physician is not always to blame, for none of us can persuade all of their pregnant women to come to them for medical attention before confinement.

Now is our time to do what we can. It is now that a physician is apt to show his or her real nature. The patient expects the physician to be busy all the time, if not, they are "too lazy, indifferent or have no sympathy." A woman at this most trying time, needs sympathy and encouragement. Never be rough or boisterous or put in the time telling of a bad case you have just had or how other women have acted, etc. Never laugh at your patient for what she may say or do. Should you feel that you must, laugh to yourself or turn your back, but never let her see you do so. In her nervous, trying state, she is not responsible for many actions or words.

We are all educated to the fact that strict cleanliness must be observed. I sometimes wonder if the physician that writes such lengthy articles on precautions and antiseptic measures, observes them every time. It has been said that medical profession itself is responsible for five-sixths of the diseases of women as we see them today. Such as rectocele, cystocele, injured cervix, subinvolution, pelvic inflammation, lacerated perineum, etc., etc. There is not one of the consequences of child birth enumerated, that cannot be prevented or cured before it has affected the individual's health.

Never rush your labor cases, unless necessary. Many cases of trouble occur when the cervix dilates slowly and the physi-

cian, impatient of delay, apply the forceps and extracts the child regardless of results which do not sometimes show for months. Do not give ergot for the purpose of hurrying up things. On entering the parturient room, be sure to observe the character of the pains, whether true or false. This may save you hours of unnecessary waiting. Allow the patient to be up and around until the beginning of the second stage. Have the bed prepared and ready for her when this time comes. I usually have the bed covered with oilcloth or pads of newspapers, and over this a sheet and several pads of cloth. On this I place my "Kelly pad." I have my patient lie with the hips in this, seeing that all clothing is well up under the back, which never gets soiled. I now cover my patient with a sheet so as to avoid soiling the bed clothing. When the head is pressing on the perineum one can prevent laceration by holding back the head. My last case of confinement was a young woman, very small, I could hardly see any other way than that there would be a very badly lacerated perineum, but by telling the patient not to force by jerks, as some do, but go slow and easy, I held back on the head till the perineum was thoroughly relaxed, if it did take about ten minutes and some of the woman's patience, but I was rewarded by not a tear. After delivery, I remove the pad containing the placenta and all discharge, and the woman has a nice dry bed to lie in. No unnecessary worry of removing soiled clothing, etc. I then bathe off the hips and genitals and anoint where there is soreness. Should there be a laceration, repair at once. Never leave the room before seeing that the uterus is contracting and inquire as to the amount of discharge. Return to see your patient inside of twenty-four hours. See that she has proper light, ventilation, cheerful surroundings and a light diet. Very much depends upon the managing and many unpleasant things can and may be avoided.

"SOME OBSTETRICAL DON'TS."

W. O. C. HARDING, M. D., ELMWOOD PLACE, OHIO.

The various works and treatises upon obstetrics are replete with advice and instructions to the physician as to what he should do, and when it should be done, but I believe there is a great

deal that should not be done, which is equally as valuable to the obsterician.

The first thing that should not be done, is to try to tell a patient, especially a primiparæ, the day she will be confined; and don't instruct her that with the very first pain to notify you and you will be there, for if she sends, and you are not there on the jump, you will promptly lose the job.

Don't declare that by reason of a long, tedious labor it is bound to be a girl.

Don't assure the patient, or family that following the first birth there will be no after-pains.

Don't become the victim of a fad and desire three bowls, for as many antiseptic washes, for you will sometimes be fortunate if you get one, and one, properly used, is sufficient.

Don't allow the patient to hold your hand or arm, and pull and drag you around, during pains. There is always something or somebody present for that especial purpose, and the physician may need all his strength later on.

Don't make examinations every few minutes in a case that is progressing normally, but slow. They are unnecessary, and are distasteful and unpleasant to the patient.

Don't promise your patient that she will not be torn a particle, and don't assert to those about that in years you have not had a case where the os nor perineum were lacerated at all. Because when some other physician sews up one of your cases he may tell on you.

Don't be led astray and accept the statement that after the pulsations have ceased it is safe to cut the cord without a ligature, for it is not.

And don't depend upon a rubber band for this purpose, but use narrow tape, and draw it taut enough to prevent bleeding.

If you expect any benefit from bandaging the mother, apply it immediately after delivery of the placenta, with a heavy pad over region of the uterus—don't wait several days.

Should there be the retention of any appreciable piece of the placenta, remove it at once—don't wait till tomorrow, nor for hemorrhage or sepsis.

Don't use a strong mercuric chloride wash after delivery, for the parts are very susceptible to poisoning.

Don't attempt any amount of manipulation of the child in utero without an anæsthetic.

Don't rupture the membranes before the os is thoroughly dilated; neither sit around and wait for nature to do so after dilatation has taken place.

See that the head is entirely free of the membranes before attempting to use the forceps. There are none made that will hold while grasping a particle of the membranes.

Don't fail to thoroughly examine the child, after it has been washed according to your instructions, and see that the genitalia are in a condition for nature to utilize them; and that there is no case of tongue-tie present to prevent the child's nursing.

Don't fail to give explicit instructions as to the care of both mother and child, and insist that they be religiously obeyed.

Don't forget that a new-born babe does not at first require any great quantity of food, and that it does not need a decoction of the various teas that every old woman in the neighborhood may be acquainted with.

Don't allow the use of bands so wide that they encompass both the babe's abdomen and thorax. Neither should the band of the skirt be more than two inches in width.

Don't permit the use of the many toilet soaps now upon the market, for they do much toward chafing and irritating the very sensitive skin of the baby.

Don't sit at the bedside and rehash the severe labors of Mrs. Jones, Brown and Smith at their late confinements; it does not relieve the already anxious condition of your patient's mind.

Don't resort to the forceps that you may hurry from a case—neither hesitate nor delay to use them when the welfare of your patient is at stake.

These are only a few of the many things that should not be done nor forgotten in the practice of obstetrics, and an observance of which has greatly benefited me in a large and successful practice as an obstetrician.

PUERPERAL ECLAMPSIA.

A. W. PORTER, M. D., LOOGOOTEE, INDIANA.

This is one of the most dreaded diseases, to which the accoucher is called to treat. It is also one of the most fatal, to which the parturient is exposed. It is of rare occurrence, some giving

one case in 350, while others give it as low as one in 600 cases of confinement.

It may come on during pregnancy, during labor and delivery, or after labor. Prior to the fourth or fifth month of pregnancy its occurrence is rare, and some weeks after parturition. The death rate is from 20 to 40 per cent. The fatality is said to be less in those who are subject to epilepsy, than those who are not. When convulsions come on at the beginning of labor, they are attended with more danger than in the latter part, when the os uteri is dilated sufficient to permit the early exit of the fœtus.

When the convulsions rapidly bring on coma, the danger to life is very much increased. If the time becomes longer between convulsions, the chances of recovery are increased.

The general division of the causes of this disease, is into predisposing and exciting. One of the predisposing causes is first births, for it is said that in every ten cases eight are primiparæ. One writer gives as the causes of the affection: age, first child birth, twin births, prolonged labor, vertex presentation, contraction of the pelvis, hysteria, the season of the year, epidemic factors, and contagion. Late investigators have concluded that this affection arises equally from disease of the mother and child. The same pathological and anatomical changes are found in the blood and urine of both fœtus and mother.

We have an increase of the fibrine of the blood, the urine contains albumin, and the blood in most cases contains corpuscles and casts of different kinds. The excretory organs of the mother, the kidneys and liver failing to eliminate this effete matter, a radical alteration of the blood takes place, which is shown in the increase of the fibrine, thus producing a tendency to thrombosis and secondary tissue degeneration.

When the kidneys and liver are performing their functions properly, the toxic matter is normally not sufficient to produce the spasms, but when any thing causes a restriction of the eliminative power of the organs of the mother, the poison accumulates and causes the eclampsia. The exciting causes are, the enlarged womb pressing on the viscera and nerve plexuses. Pain caused by distention of the womb during pregnancy. The weight of the fœtus pressing on the orifice of the uterus during pregnancy. Abnormally rigid cervix in connection with severe labor pains. The temperature of the room may be an exciting cause.

Some cases occur without any prodromal symptoms, and

these generally prove to be very violent cases, but usually we have signs indicating the approach of the disease. One of the most prominent symptoms is a very severe headache, which is usually over the brow, and it may last for days, or but for an hour or two prior to the attack, and often is accompanied by nausea and vomiting. Syncope may occur, also vertigo, flushing of the face, flashes of light before the eyes often producing momentary blindness, ringing in the ears and deafness. In some cases we have pain in the epigastrium. If these symptoms are not headed off, and proper treatment resorted to, we have the convulsive stage of the disease to deal with. The symptoms become aggravated, the face changes color, and the muscles of the body become violently convulsed. The eyes are opened and closed rapidly, and they stare convulsively upward, and are then turned to the left.

The tongue is protruded, and if care be not taken it is bitten. The face becomes violently twisted, there is froth about the mouth, which is mingled with the blood from the tongue, and is blown a considerable distance from the compressed lips, staining the patient's face, dress and the pillows upon which she lies, thus adding to the horror of the spectacle. The limbs become violently convulsed, the fingers are closed, the thumbs digging into the palms of the hands, the breathing is rapid, irregular, and of a violent and peculiar hissing sound. The pulse which was at first rapid, full and hard, now becomes slow and weak, so that it can hardly be felt at the wrist. The respirations are now suspended, the face and body become livid, and we have loss of sensation.

After a short time we have a speedy relaxation of the muscles, respiration is restored, and the lungs regain their power of oxygenating the blood, the features become more natural, the pulse is discernable at the wrist, and respiration is restored. Consciousness is restored in a greater or less degree and the patient is aroused as if from a deep sleep. She recognizes that something has occurred out of the common order, but her intellect has been so blunted, she is not conscious of anything that has occurred.

If she returns to consciousness sufficient she complains of pain in the head. There is now an interval of a few minutes to hours, when the same phenomena takes place as before, and then paroxysm follows paroxysm, until they cease entirely, or they end with the death of the patient. The patient does not always return to a conscious state, but coma follows the convulsion, and during the time between convulsions, she remains motionless and insen-

sible, with a hissing, stertorous breathing, or she may be restless, throwing herself about in the bed during the interval. The convulsion may be followed by coma, until the final coma may last for twelve hours before death occurs. Occasionally the convulsions are unilateral, one side is convulsed, then that passes off, and then the other side is affected.

This affection is to be distinguished from epilepsy, apoplexy, and hysteria. In epilepsy there is usually but one paroxysm. When there is more than one, they are separated by long intervals, and are rarely followed by coma. We have also a history of previous attacks.

In apoplexy the fall is never preceded by any convulsive movement. We recognize it from apoplexy by the latter being attended with hemiplegia. It is not difficult to distinguish it from hysteria. There is no frothing at the mouth, and during the attack, the intellect and sensation remain intact. The convulsion does not end in coma, but in tears, sobbing, sighing, yawning and stretching.

The most important thing, in the treatment of this disease, is the preventive treatment. Prof. Meigs said many years ago, "I have met with a good many samples of eclampsia, in the course of my obstetric practice, but am very sure that I have prevented a far greater number of attacks than I have witnessed." If the patient complains of a dull pain in the head, with expressionless face, pupils dilated, give spec. belladonna in usual dose. In connection with this, if we have a rapid, full, oppressed pulse, give spec. veratrum, alternate with belladonna. When the face is flushed, eyes are bright, pupils contracted, with severe pain in head, give spec. gelsemium instead of belladonna. If the bowels are constipated give a purgative. Potassium acetate in ten grains should be given, as it acts upon the secretory organs, causing them to carry off the poison. In cases when there is puffiness of the face, hands and feet, specific apocynum is good. If this course of treatment is commenced in time, and pursued faithfully, many cases will be aborted. When the convulsions come on, we have first, to control the spasms; second, to hasten delivery, when labor is on, and third, direct convalescence. For the first, various means have been employed. In some cases, good results come from the inhalation of chloroform, chloral hydrate in fifteen grain doses, repeating as frequent as necessary, to quiet the patient.

Specific gelsemium in large doses is one of the best remedies

at our command, in many cases, repeating the doses at short intervals until you have relaxation of the muscles. This remedy overcomes the spasms, relieves the hyperemia of the brain, and assists in dilating the os uteri, and in this manner hastens the delivery.

Another good remedy, and one highly lauded of late years, is veratrum in large doses. This remedy I used years ago, with good results. The compound tincture of lobelia and capsicum, in large doses, a half ounce every fifteen or twenty minutes, will prove a good remedy in some cases. If it produces emesis, it will do no harm.

The bowels should be flushed thoroughly with warm water. Cold applications to the head, in the form of ice water, will assist in reducing the congestion. Hydrochlorate of pilocarpine is spoken of very highly by some, in this disease. From what we know of its stimulating effect upon the glandular system, and its power of eliminating the urea of the blood, we would not hesitate to use it, and would look for good results. As the convulsions often cease after the delivery, writers have advised the hastening of the delivery. This is a part of the treatment that requires great care, and not much haste must be made, or we may make our case worse than if left to nature. If the labor is progressing normally, but the orifice is not dilated, we can do nothing, but if the os uteri be properly dilated, and the membrane be intact, it may be ruptured to hasten the delivery. If we have an excessive quantity of liquor amnii, the setting of it free, will in some cases calm the attack. When labor is advancing, with the orifice dilated, and the membranes ruptured, we should wait on nature, rather than risk interfering. Caution must be exercised, even when the convulsions are severe, and the os uteri is soft and dilatable, for an attempt to dilate the orifice at this time, may prove more fatal than the disease. Should the head be low in the pelvis, and forceps can easily reach it, and they can be easily applied without injury to the patient, the delivery may be made with them. Should convulsions come on during the time the forceps are in place, they must be removed promptly, to prevent injuring the soft parts of the patient.

Great care must be exercised during convalescence. The room occupied by the patient must be kept quiet and dark. The bowels must be flushed or mild cathartics used to move them if they are not active enough. If the patient complains of dull pain in the head, with dilated pupils, give belladonna. Give gelsemium

if face is flushed, pupils contracted, pain in head is sharp. If there is excitation of the circulation, veratrum or aconite will answer a good purpose. If a tonic is needed Howe's acid solution of iron is good. Elixir of calisaya, iron and phosphorus in some cases will do well. Give light nourishment at first, but as improvement advances give more nourishing food.

DISCUSSION.

DR. GOSS:—We usually have albuminuria preceding convulsions in most of the cases, and we generally find undue distension of the limbs with a dropsical accumulation; sometimes there is overactivity of the kidneys, and at other times there is scanty urine; but the characteristic frontal headache is generally present in the cases I have observed. Apocynum, with acetate of potash, and keeping the bowels thoroughly open with epsom salts is a preventive treatment. The indication may be for gelsemium or veratrum, but when the convulsion is on and we have a full, bounding pulse, give veratrum in good round doses hypodermically, the equivalent of twenty drops internally. I usually give two or three drops hypodermically at first to relieve the congestion, but later on when the pulse is weak I would not use it, but I think of lobelia in the rectum. Keep the whole body and the extremities warm. Gelsemium is a great relaxant, and in helping to dilate a rigid os I use it on my hand in dilating mechanically. I have had a number of bad cases and have been called to assist other physicians and I use heroic measures. When sufficiently relaxed I hasten delivery with the forceps.

Frequently we find the convulsions continue after delivery, and then we have to treat on general principles, but always remember to keep the circulation equalized and keep the extremities warm. Use the veratrum and cold packs on the head, and chloroform to keep the blood away from the head. I have used chloro-hydrate in the rectum with excellent results, but lobelia in the rectum to relax if you can't give it in the mouth to produce emesis. I do not use a hypodermic of morphine.

DR. CLAYBURG:—The preventive treatment is the important thing and the swelling of the feet is not so important as the puffiness of the eyelids. Then come in with your eliminatives. Push apocynum as a remedy. Get the skin active. I have not heard my specific mentioned. It is milk. Of all the remedies we want to remember chloride of iron is a good kidney remedy.

Combine it with acetate of potash and get a good mixture. Be careful about the use of pilocarpine. I have heard it said that a patient cannot have a convulsion after they have a drachm of gelsemium, but they can, will and do die in spite of it sometimes. I like veratrum better than gelsemium for some reasons.

DR. TEAGUE:—What is a poisonous dose of veratrum?

DR. CLAYBURG:—Enough to make her vomit and stop the heart from beating. I would give ten drops of Norwood's tincture, and if too much effect counteract with a hypodermic of morphine.

DR. PICKETT:—I want to ask this convention to discuss this fully. I stand here as a practitioner of thirty-four years and I have never yet met a case of puerperal convulsions. I want to know what to do if I ever get a case. I think sometimes I have prevented these things, but I have never yet met with a case and I thank the Lord for it.

DR. MICHNER:—For three or four years I have been obstetrician for a large lying-in hospital and have had some experience and I want to endorse what has been said, especially by Dr. Clayburg and Dr. Goss, especially not to bother about the size of the dose of veratrum. I seldom commence with less than a thirty-drop hypodermic and repeat in fifteen minutes with fifteen drops, and never saw one poisoned yet. One other thing I wish to mention is the exciting cause. I always look to the preventive treatment. In the majority of cases the exciting cause has been a loaded condition of the bowels. I had one woman who had convulsions right along, two the first day, three the next, and she was having them all the time. I was called in consultation and I gave her a glass of a saturated solution of epsom salts and followed it up with a heaping teaspoonful of antibilious physic, and those bowels moved, and there were dried apples that had been there for six months and breakfast food and Force—and her convulsions ceased. She went on for two weeks and then did not send for me, but the child was born at the second pain. They did not have any doctor at all. But I believe it is a mistake to attempt to deliver the child immediately. If you can control the convulsions labor will come on all right.

DR. BEMENT:—I have only met a few cases of eclampsia. I have never had a case where I have known how much good I have done. Every case has come on without any previous knowledge of it. But I am like the last speaker; I begin with a good

round dose of veratrum. I am very thankful that I have gotten along as well as I have, although I fear each case will be a serious one.

DR. BUSHNELL:—In the treatment of eclampsia the keynote is prevention, but suppose you are not called until you are too late to prevent. This school has put forward the most effectual treatment for eclampsia, and that treatment begins with veratrum, and that is now called the American treatment for eclampsia, and all the most recent text-books published by the allopathic and homœopathic schools, as well as our own, advocate the use of veratrum, beginning with small doses and increasing. Give veratrum until effect is produced and so long as you have the full, bounding pulse, and then stop; you will get no poisonous effect. Another essential is elimination. Empty the bowels. Give epsom salts frequently, the saturated solution. Give enemas of epsom salts and glycerine. Stimulate all of the excretories. Take the load away from the kidneys. Place your patient if necessary in a wet pack. Don't hasten labor until you have the os fully dilated, but stop the convulsions. If veratrum don't do it give chloroform—do anything you can, but do it in a hurry. You may pack the vagina with a tampon of sterile gauze and you will find by the time the convulsion is over the relaxation is so complete that the os is fully dilated and probably the head has descended through the canal.

DR. TUCKER:—I want to say that nothing is better than veratrum in thirty-drop dose, give immediately hypodermically. I have repeated this dose. I do not think you get any bad effect. I would follow with five or ten drops, but if the case is severe give thirty drops hypodermically. I have given Norwood's tincture in that way and never had bad results. I also pack the vagina while waiting for the os to dilate.

DR. KEYS (Omaha):—I think in many cases if we begin in time we will not have puerperal eclampsia. I want to speak of some of the things said here in regard to the condition of the kidneys. Some one said that we always have albumin. I have seen four or five cases in which there was no albumin whatever in the urine. One occurred in Cincinnati, in which Professor Lloyd examined the urine, and there was no albumin, and I have had it examined in other cases. The woman is eliminating for herself and for the child, and it is too much for the kidneys and she cannot rid the body of the effete matter, and convulsions ensue.

Apocynum has been mentioned, and it is all right if the medicine can be taken. If not, I have a substitute. It is the distilled extract prepared by Professor Lloyd. I called his attention to this a year ago. I had been using a preparation in the form of a decoction and had good result, and he consented to make this preparation and it is now on the market and I have had a number of instances where I could not keep anything else down. You can begin with this preparation a half teaspoonful or a teaspoonful dose three or four times a day and increase until you get the full effect on the kidneys and skin. Then decrease the dose to less than half. I don't care what the conditions are, I have had success. It has no more taste than distilled water; no odor. The most delicate patient will take it without trouble. In those cases where the lids begin to puff in the morning and the feet to swell in the evening it will do away with the trouble in the kidneys and prevent eclampsia.

DR. WINTERMUTE:—It seems to me this has been thoroughly discussed, and we have so many important papers here. I have nothing to add to the treatment. We all agree that where we have premonitory symptoms we should do all we can to prevent convulsions, and these we recognize by the swollen extremities, the edematous condition, the eyes and headache. Albumin is not always an evidence that convulsions will follow. There may be albumin present and the patient go through normally. I think there is no better way to prevent this than diet, and there is no better diet than milk. Where we have these symptoms milk will come as near preventing convulsions as anything else. I do not believe there is any danger in giving pilocarpine as a preventative. There is danger of œdema when the convulsion is on. When the convulsions are on, the first eclectic treatment used to be compound lobelia and capsicum. Bleeding was formerly used. It stopped the convulsion, but the patient frequently died from loss of blood. Following up the early treatment, the next thing is gelsemium. Following that, we have the treatment I use now, and it seems to be the best thing. It is morphine and chloroform. It relaxes and encourages delivery. If the patient is not in spasms, but has had them and is in the interim, I believe that forcing delivery is not to be delayed. When we get dilatation and the conditions are favorable we should deliver quickly.

DR. WHITFORD:—I wish to say amen to everything that has been said, especially to what has been said about lobelia. I

believe it is the greatest antispasmodic known to the medical profession. It is swift and sure in effect. In fifty years' practice I have had a great many cases of the kind and never had one die and never failed to give lobelia from beginning to finish and so relax the system that spasm could not recur. In doing that you have done everything. You have opened the channels for elimination, and your patient cannot have a spasm. In any case of convulsion give lobelia at once, and if it does not take effect rapidly give chloroform to start the relaxation of the system, and that will stop the spasm.

DR. SCHUSSLER:—In puerperal convulsions, due to albuminuria, if you will give one-eighth grain morphine, hypodermically or otherwise, it will lessen the chance of the patient's recovery. I believe it will do as much to kill as the convulsion. Do not give morphine where there is local trouble. It will kill the patient. I give chloroform. Check the convulsion as rapidly as you can with chloroform, and at the same time give hypodermically and internally veratrum and gelsemium and give lobelia until the condition of the kidneys can be remedied.

DR. PORTER (closing): I do not wish to take up the time of the association further, but will say I have had five cases and have not lost one. With reference to morphine and to bleeding, I *never bleed a patient or give a dose of morphine.*

DISPLACEMENTS OF THE UTERUS COMPLICATING LABOR.

WILLIAM B. CHURCH, M. D., HOLLAND, MICHIGAN.

The conduct of labor has from the earliest times been regarded an important department of the doctor's sphere of usefulness.

In the majority of cases gestation and parturition progress and terminate so happily that the necessity of our presence and supervision is not flatteringly obvious.

The frequency of serious complications, however, is such that, on the whole, we easily persuade ourselves that we are indispensable on those trying and interesting occasions. In a long series of cases problems are sure to be presented which will demand the highest degree of skill and good judgment to successfully cope with.

The various displacements of the womb are frequently responsible for erratic and many times serious complications. Any deviation of this organ from the normal position is to some degree unfavorable to conception. When consulted because of failure to conceive we examine, first of all, for displacement. Versions and flexions are most often responsible for such a condition, as they tend to render the os inaccessible to the spermatozoa.

Many physicians assume that stenosis of the cervical canal is the obstacle to be overcome, and the routine treatment consists in dilatation, and when pregnancy supervenes, as often happens after such treatment, the assumption seems justified.

It is apparent, however, that a cervical canal permitting the menstrual flow can offer no hindrance to the entrance and migration of the spermatozoa. The manipulation has partially corrected the displacement sufficiently to admit pregnancy, but, as all treatment is then suspended, the uterus returns to its vicious position.

If this be that of anteversion or anteflexion the course of gestation may not be much disturbed. However, as labor approaches there is unusual protuberance of the lower abdomen, simulating pendulous abdomen. The examining finger locates the os uteri with difficulty. A smooth, round tumor is encountered projecting well into the vagina, evidently inclosing the fœtal head. At least one case is on record in which the attendant failing to locate the os concluded it was agglutinated and incised the uterine wall, the patient dying from hemorrhage with the child still in utero.

Dr. P. B. Wright, at the last Michigan state meeting, reported a case of this kind to which he was called in consultation after the patient had been several days in violent labor, and after failure to find the os the scalpel was used on the distended thin uterine wall, doing practically a vaginal Cæsarean operation, which terminated more happily, saving the child, and mother recovering without any attempt to suture the wound, it being closed sufficiently by post-partum uterine contraction.

The Journal of Obstetrics for May, 1900, page 238, gives an abstract from Archives of Gynecology, Vol. LVIII, No. 1, of a case of spontaneous rupture of uterus during labor. Pregnancy had been uneventful, but the lower part of the uterus was fixed in the pelvic cavity and the anterior part of the lower segment

was so stretched that the organ ruptured. By inserting the whole hand, and insinuating the examining fingers well up underneath and behind the presenting part, we find the os flattened to a tense fibrous ring, closely applied to its posterior aspect. Its position is such that the membranes cannot enter it nor anything tend to dilate it. The force of the uterine contractions is expended on the anterior wall of the lower segment of the uterus, through which the child seems attempting to butt its way into the world.

However frequent and vigorous the pains, we will not predict an early termination of labor. We will especially refrain from all attempts to promote contractions. It will often happen after many hours of hard labor the chief actor in the drama lapses into indifference; she grows more quiet and may experience a feeling of chagrin, lest she has raised a false alarm. At all events the uterus and child are discouraged and labor comes to a standstill. The prospective mother either falls asleep or calls for something to eat; either one an unfavorable omen so far as the resumption of labor is concerned. There are now two courses open to us—either to withdraw until further orders or to resort to accouchment force. If the latter alternative is adopted we again penetrate to the farthest limits of the elongated vagina, until again able to palpate the aforesaid fibrous ring, which will be found little, if at all, changed in the interval. Hooking the index finger in this we forcibly draw it down and forward, and by manual dilatation bring on the suspended pains. The rigid os is slow to yield and our efforts are not kindly borne. The patient insists we are killing her and begs to be let alone. Immediately we relax our efforts the *status quo* is resumed. But we are not content. There is nothing doing, and the inertia wears on our nerves. So we renew the attack under anæsthesia. By persistent effort the os is at last partially dilated and since so much time has elapsed. and the patient is becoming exhausted, and especially since the pains come on only at long intervals, and even then are inefficient and disappointing, we decide to apply forceps.

The previous manipulations have interfered with rotation. The presentation is accordingly not favorable to forceps application, but after several attempts we are at last able to lock the blades. Extraction is difficult, but ordinarily we will at length succeed, but there will be many drawbacks to our complete satisfaction. Our first effort must be to overcome threatened asphyx-

iation of the child. We attack this problem with confidence borne of many successful cases, remembering the necessity of keeping the little body warm. Later we turn to the all-enduring, patient mother, who is thankful to have escaped at any price, and find it necessary to stitch a torn perineum. We will probably administer anodyne, and if she requests it apply a binder. We now take our departure with a feeling of complacency, confident of having borne a good part in a trying and difficult situation. We need have no fears either that we will not be held in high favor in that household, and our services accepted on a future like occasion. Our subsequent visits find the mother feverish, there develops more or less septic trouble from traumatism, and on the whole the puerperium is far from being ideal, and eventually the case becomes ripe for gynecological treatment. Still we see little or no reason to reproach ourselves; whatever of suffering and disability exists, is held to be necessarily and unavoidably incident to difficult labors.

Another course has doubtless already suggested itself to some of you, and in most cases it is much to be preferred. When labor is suspended abruptly as above described, instead of an attack upon the citadel *vi et armis,* we will bid the house good morning, after having counseled rest, and assured them that it is really a good thing the patient can have a little time to rest and recuperate; that the effort was probably premature any way. You all know the formulas; you retire to your virtuous spouse and couch, and devote the rest of the night to securing much-needed sleep. You may have more than enough time, as your next call may be delayed a week or more. You will be told of occasional pains and other indications of labor, which were ignored, as they didn't want to make another fiasco, but were bound to wait until sure they were going to need you. Upon investigation it is evident some intelligent agency has operated in the interval to improve the situation. There is increased relaxation and the situation is more promising in many respects. The child is less disposed to break into the world through the walls of its prison house, but patiently awaits exit through the opening door. There will be plain indications for guidance and some assistance over hard spots, but none for such manipulations as are liable to entail serious consequences. When at last the matured fruit falls into your hands it is neither wounded nor bruised. It is pre-

pared to take wind without any interval of anxiety and adapts itself with marvelous tact to its new environment.

Retro-displacements are still more unfavorable to conception and more disturbing to the whole course of gestation and labor. Nausea is severe and persistent, often resisting all treatment. If the uterus rises into the abdominal cavity at the end of the third month, this, together with its rapid development, may so far overcome flexion and improve nutrition that the nausea then ceases, and the remainder of the term of gestation is then comparatively comfortable.

In many cases, however, the ascent is incomplete. A portion of the posterior uterine wall becomes sacculated and fixed by adhesions in the hollow of the sacrum, then nausea continues and becomes more aggravated; may even threaten life from exhaustion and inanition. When the fundus is incarcerated below the promontory of the sacrum the discomfort is extreme. Disturbance of the functions of bladder and rectum, with sensations of weight and fullness in the pelvis, grow worse and worse until the intolerable situation culminates in abortion. Most cases of habitual abortion, occurring at the third or fourth month, are owing to this complication. If such a patient has proper treatment to rectify the vicious position her next pregnancy will go to full term.

We should, however, not permit such a retroverted incarcerated gravid womb to remain in its cramped position, which will not admit of the required development. If not fixed by inflammatory adhesions we may be able to release it by placing the patient in the knee-chest position and pressing upon the fœtal head with one hand from the rectum and the other just above the maternal pubes. If not successful in this attempt we should not hesitate to open the abdomen, break up adhesion and lift the uterus to its proper position in the abdominal cavity.

The complications of labor arising in these cases are chiefly due to the frequency of the occipito-posterior position. This abnormal position always tends to cause tedious and protracted labor, and nearly always constitutes the reason for a woman suffering much more and much longer with one child than another. Whenever called in consultation in a tedious and difficult labor I suspect an occipito-posterior position with failure to rotate. Several years ago I read a paper before this section in which I advocated the use of the forceps to secure rotation whenever

it was delayed and could not be obtained by manual efforts. In the discussion that followed, this treatment was generally and strongly condemned as dangerous to mother and child. So far from being discouraged by the adverse opinions, I have continued the treatment with increasing satisfaction. Recently the New York Medical Journal offered a prize of $25 for the best paper on management of occipito-posterior positions. The writer to whom the prize was awarded declared rotation with the forceps the best treatment. It has long been apparent to me that it is inexcusable to permit a woman to suffer long hours in the throes of labor under circumstances that admit of almost immediate relief without involving any injury. Of course such forceps rotation must be done while the fœtal head is in an oblique position. In the rare cases in which rotation is reversed, throwing the head into the hollow of the sacrum, where, by descent of the shoulders it becomes impacted, rotation becomes impossible. In nearly all these cases craniotomy or the Cæsarean section is the only alternative. These cases are fortunately extremely rare, and can always be prevented if the case is seen before the head engages in the pelvic brim.

The usual practice of applying forceps for extraction while the head is in either oblique position, with a posterior occiput, must be strongly condemned. It is directly responsible for thousands of invalid mothers and deformed, crippled and feeble-minded children. For the purpose of extraction there is but one proper position for the forceps. For rotation they may be applied as circumstances determine. When rotation is secured remove the forceps and if necessary reapply for extraction.

THE FORCEPS IN DELIVERY.

E. B. PACKER, M. D., OSAGE CITY, KANSAS.

It is not so much the style or brand of forceps you may use, as it is the time and manner of using them. I frequently meet doctors who are thoroughly frightened at the thought of using forceps, let alone the act of using them. This class of doctors should never under any circumstances use the forceps. If they own a pair they should go straight away and sell them, even if they get but junk price for them, for if they do use them it will

be a miracle if they do not have a ruptured perineum, a lacerated cervix or contused vaginal walls or a dead child, or even all of these things may happen in the same case, and unfortunate is the woman who falls into his hands and depends upon a broken reed.

I have met the doctor who knew so well how to use the forceps that he need not even address himself to the case, yet to save his life he could not define "the curve of carus." I will only say, from this fellow let women pray to be protected.

Some one said, "The forceps are the childs' instrument.' But allow me to say they are as much the mother's. I have also seen men who regarded the use of instruments as the last resort. To this class of doctors I also want to enter my protest. It is true that "meddlesome midwifery is bad," but before passing I want the word meddlesome defined. This being done I want the lines closely drawn. If it is meddlesome to allow a woman to linger in pain after pain by the hour, simply because the child will finally be expelled, when the introduction of a pair of forceps and slight traction will deliver the child, then I must take exception to the term. If, when a woman is suffering because the head will not engage at the superior strait, it is meddlesome to introduce the forceps and bring that head into the engaging position, then I again object to the definition. I am firmly convinced that the proper use of forceps is a benefit to both mother and child.

To be properly equipped for the use of forceps it is necessary to carry a long and a short pair and to have them at hand at all times.

Given a case where the head presents and labor proceeds normally till the head is engaged and comes well under the pubic arch and all indications are for a quick delivery. As pain follows pain and no advance is made, or where the advance made during a pain is lost in the interim, such a case calls for the short forceps, which can be introduced without change of position of the mother; very slight traction, and very often no traction at all, will start the head and the child will be born with a single pain, while the labor would have continued several hours had no assistance been given.

Given a case where the head engages in the superior strait but fails to remain engaged after having been brought in proper position by the pain of labor and the cervix well dilated and the

soft parts in proper condition. This case of all cases should have, not instrumental interference, but instrumental assistance. In this case it is seen that only the long forceps will apply. Let the woman be placed in position by bringing the hips over the edge of the bed, knees flexed on the abdomen. Let an assistant sit on each side of the hips. Let each attendant support a foot and knee in the flexed position. Let the mother be able to reach an arm of each of the attendants. Let her head and shoulders be raised higher than the bed. Then proceed. Do not give her chloroform or ether, if I am to do the work. Get another doctor. Oh, yes, if he is handy, or your mind is weak, or your power of endurance small. I do not care for any, and seldom have one (Eclectics are not plentiful enough in Kansas for a patient to have more than one at a time). All things being ready, let the blades of the forceps be applied in turn, being particular to have the instrument sweep the "curve of carus," and nine times out of ten you will lock at the first effort. The mother is conscious of all that is done, and is a positive guide that those instruments have done no harm and are where they ought to be—on the child's head and not on the mother's soft parts. Now with the first pain and observing the axis of the superior strait, the head is at once engaged and may need little or no further assistance, though if it does, you are ready to apply the needed assistance. The child is delivered alive, the mother has been saved a world of agony.

Of course no doctor would make so gross an error as to allow his forceps to slip and cut off an ear, or do other violence to the continuity of the child's skin.

I will not take the time to discuss the use of forceps in those cases of delayed labor and breach presentation, and such other cases, when any man would be *obliged* to use forceps where they really are a last resort. But if I can lead you to get on speaking terms with your forceps and get you to see the advantage of using them well, and doing so, *to the relief of the mother as well as the salvation of the child,* then the purpose of this paper is accomplished.

SPECIFIC MEDICATION IN OBSTETRICS—ANTISEPTICS.

J. S. NIEDERKORN, M. D., VERSAILLES, OHIO.

Nowadays the expectant mother early seeks the advice and services of a physician and engages him not only to attend her during her labor, but that he may also prepare her for that trying ordeal. This custom of early consultation is now more prevalent than it was formerly, and rightly so, for the reason that under ordinary conditions the physician really cannot only remove many of the unpleasant conditions frequently present during the latter months of pregnancy, and which unpleasantries are attributed to the pregnant state, but he can also prepare his patient so that she will have comparatively an easy labor and a pleasant post-partum stage.

Reasonable hygienic measures, attention to the skin, kidneys and bowels are not the only measures which can be of benefit. Specific medication has done and will do much toward relieving very many of the unpleasantries attending pregnancy, and many of our therapeutic agents are really elegant partus-preparators. The physician needs be just as careful in the selection of remedies in these cases as he is in determining his treatment for other conditions; the greater care he exercises the more satisfactory will be the results.

It is not exercising good judgment to exhibit a stereotyped internal treatment for every case, though there seems to exist a strong inclination on the part of many physicians to do this very thing, probably for the reason that they allow the flattering inducements held out by the manufacturers of proprietary preparations to supersede their own judgment, in which case the manufacturer is the real prescriber, not the physician.

Experience has proven that where specific medication has been strictly followed out in the preparatory treatment there will be little occasion to resort to extreme antiseptic measures during labor or during the puerperal state, as advocated by some physicians, for the reason that pathological conditions were removed, nature fortified and assisted during her efforts to throw off the product of conception at the natural period, thereby enabling her to better resist the invading influence of disease-producing microbes. There is no questioning the fact that the healthy, natural secretions are better protectants than any antiseptic known.

In addition to the attention given the excretory organs, it has been my custom to administer some one of the following remedies to the expectant mother some time previous to her labor, and continue their administration until nature is ready to expel the uterine contents, nearly always with the most happy results. Specific macrotys proves of great benefit to relieve muscular soreness and muscular pains, dull, dragging backache; it also imparts tone to the uterine muscles and stimulates uterine innervation. This agent is certainly a true partus-preparator.

Specific medicine pulsatilla will relieve many of the unpleasant nervous conditions often present during pregnancy; many times pulsatilla, given alone or in alternation with macrotys, has demonstrated its true value as a preparator.

Specific medicine cypripedium is another excellent remedy to relieve nervous conditions, and it is my selection if the case presents a history of previous unrest due to some uterine or ovarian derangement. If there has been enfeebled innervation and a history of pelvic distress and weight preceding pregnancy, specific medica helonias, given with cypripedium, will prove efficient.

Specific viburnum will relieve the sharp pains and the bearing-down sensation, and if there is a history of previous abortion the more reason why viburnum should be administered.

If the person is one of full but lax habits—plethoric—and there is uterine pains and tenderness with chronic uterine irritation, pain in the hips and legs, false pains, specific caulophyllum is the remedy. And if there has been a general out-of-tone condition of the uterus and its appendages, a weakened condition of the support of the uterus and leucorrhœa, specific senecio is indicated.

As a general all-around remedy for the preparation of labor, to relieve congestion, reflex symptoms and the general irritation of the nervous system, due to uterine changes, specific medicine mitchella stands pre-eminent as a preparator.

During labor specific medicine macrotys will strengthen uterine contraction, and I prefer it to any other remedy under ordinary conditions.

For the short, ineffective pains, seemingly dependent upon muscular exhaustion, strychnia will be of good use.

Specific medicine nux, when pains are crampy and confined almost altogether over the uterine fundus, or where there is a feeling as if the back must break, will be a helpful agent.

If dilatation is slow, with a thin, dry, sharp edge to the os uteri, specific medicine gelsemium, with or without macrotys, will hurry things along. But specific medicine lobelia is preferable to this in slow dilatation with rigidity of the os uteri with thick, doughy edges.

Specific medicine pulsatilla acts kindly to overcome the marked restlessness evinced by parturients. An infusion of the leonurus will prove elegant in suppressed lochia; if there is much pain attending a suppressed lochia, bloating of the abdomen with a sense of great weight in the uterus, an infusion of matricaria will relieve.

Ergot *has* a place in some instances in labor, but it is my opinion that the remedy is used too frequently, and when there is no occasion for its administration, and I also believe that a great many post-partum troubles are due more to the imprudent use of ergot than are due to the non-employment of the strict antiseptic measures one sees now so frequently advocated. There are cases where the judicious application of antiseptics will prove correct treatment. I do not wish to be understood that the employment of local antiseptics is *always* wrong, but I am of the opinion that physicians carry this antiseptic treatment too far, become over-zealous, as it were. If the abraded mucous surfaces of the genitalia really are rapid absorbents of septic material, then it is reasonable to believe that they can also absorb applied bactericides—bichloride of mercury, for instance—and from this develop a systemic poisoning.

Strict cleanliness can be and should be observed during labor, and this cleanliness is not to be restricted to the patient alone; the accoucheur is entitled to observe much of it so far as concerns himself, and this cleanliness certainly can be accomplished without the application of the various antiseptic agents held out as necessities by those who consider themselves authorities; and when common-sense cleanliness is observed there will be little occasion to resort to this bug-scare fad, and the dangers of infection will be reduced to a minimum. The healthy natural secretions of the genital canal during and after labor certainly are the best protectants against bacterial invasion, and it certainly appears logical to believe that the less these secretions are interfered with the better off will be our patient. The term "meddlesome midwifery is bad" can properly be applied to customs other than those considered as manual interference. A nicely selected

preparatory course of treatment before labor will prove its efficacy during and after labor and will make friends for specific medication.

THE TREATMENT OF SOME CONDITIONS INCIDENT TO PREGNANCY AND THE PUERPERIUM.

J. E. G. WADDINGTON, M. D., DETROIT, MICHIGAN.

It has been aptly said that it is the small things of life which conduce to success, and in obstetrics it is likewise the small things which conduce very materially to the well-being of the patient, and as a natural sequence to the physician's well-being and reputation. The following is my treatment for the conditions named:

Emesis Gravidarum.—I have found plain ice cream, sipped very slowly, prove as often efficacious as any of the thousand and one remedies advocated for the relief of this condition.

Pruritus Vulvæ.—This is generally due to acrid discharges. Borax ʒij to the pint of water used as a vaginal douche morning and evening and applied as a lotion frequently to the parts will usually relieve. Where due more to a neurosis I have found the following prescription, taken from "Wintermute's Obstetrics," prove quite effectual:

℞ Carbolic acid .....gr. v.
Acetate of morphia.....gr. ix.
Acid hydrocyanic, dil.....ʒj.
Glycerine .....ʒij.
Aq. dest. qs. ad.....℥ij. M.

Sig.—Moisten some lint with this and apply to the affected parts, renewing as required.

Constipation and Hemorrhoids.—The one condition almost presupposes the other. I have found magnesium sulphate a desirable laxative. Abbott's saline laxative, which is a C. P. magnesium sulphate prepared in a form pleasant to take, is excellent. A teaspoonful is given in half a glass of water the first thing in the morning, to be repeated in six hours if necessary. It is quite pleasant and effective. For the hemorrhoidal condition I prescribe one ounce of distillate of witch hazel to cold water, two ounces. Inject into the rectum once or twice a day, retaining as long as possible. This will give almost instantaneous relief.

Albuminuria.—In slight cases a restriction of the diet to milk alone, and keeping the bowels free with the magnesium sulphate will cause the albumin to disappear. In more advanced cases give elaterium, gr. 1-20, every two or three hours. This will cause free unination and copious watery stools. In cases where uræmia, with its concomitant convulsions, is imminent and our only resource seems to be the induction of premature labor, give the elaterium as above and put your patient in a superheated air apparatus (most hospitals are now equipped with such an apparatus) for forty-five minutes at a temperature of 150°; repeat this daily as required and you will be gratified with the results.

Caked Breasts.—Infuse an ounce of chamomile flowers in a pint of water, allowing it to steep for half an hour at gentle heat. Apply as a fomentation to the breasts for half an hour at a time, reapplying every four hours. This, if applied early, will relieve in a very few hours.

Sore Nipples.—Glycerole of tannin, applied thoroughly after each nursing, always washing the nipple well, both before and after nursing, will soon effectually toughen them.

Neuralgia of the Breast.—I have had a few cases where the mother would complain very bitterly of the pain from baby's nursing. Upon the application of the baby to the breast each pull upon the nipple is described as being like a knife thrust through the breast and is so agonizing as to actually preclude nursing. Examination discloses absolutely nothing. I cured my cases, enabling them to still continue nursing, by applying a galvanic current to the breasts, the negative electrode sponge being applied to the breast, leaving the nipple uncovered, the positive applied to the dorsal spine ten milliamperes for five minutes each day.

To hasten and strengthen pains when deficient, I find nothing acts so nicely as a five or ten grain dose of quinia sulphate with 1-60th grain strychnia sulphate, repeating once or twice at intervals of an hour.

As a tonic in convalescence a granule composed of strychnine arsenate, gr. 1-134; quinine arsenate, gr. 1-67, and iron arsenate, gr. 1-67, one to three after meals, acts like a charm.

EXTERNAL PODALIC VERSION.

J. M. WELLS, M. D., VANCEBURG, KENTUCKY.

By the above caption is meant changing the presentation of a fœtus in utero from other position, or positions, to one of foot presentation, without introducing the hand into the uterus. The manipulation may with equal propriety be called bi-manual external podalic version.

The modus operandi is simple and may be executed by a novice, yet there are some points that it is well to bear in mind: First, if the fœtal head should be found slightly to the right of the maternal symphisis pubis the operator should stand or sit on the patient's right, and pressing the finger tips of his right hand deep in the left iliac region of the subject endeavor to bring the fœtal head further to the right by gentle and steady pressure, at the same time with the left hand he should force the nates of the infant to the maternal left; second, if the fœtal head is found to the left of the maternal symphisis the position of the operator should be to the left and his manipulation reversed; an assistant should be present and with two fingers introduced into the os uteri, note the movements and grasp a foot as soon as it may present; as soon as a foot is secured the extra abdominal manipulation should cease; an anæsthetic may or may not be needed.

When should podalic version be executed? To answer broadly, whenever an abnormal position of the fœtus is manifest; to be specific, when the hand, one or both, the shoulder, either left or right, the face, the hip or a transverse presentation occurs, or when from one cause or another the fœtal head fails, after due time, to engage in the superior strait. Perhaps I can best elucidate this by citing a case. Mrs. S., aged 42, thin in flesh, poor muscular development and very feeble from inefficient nutrition, had been complaining of something like labor pains for about a week, at which time she called Dr. O. The doctor found the os dilated to the size of a twenty-five cent piece and dilatable, a flaccid uterus and inefficient pains. He remained all night and all next day, administered uterine stimulants, and in the afternoon ruptured the fœtal sac, at which time the os was fully dilated. When after some hours he called the writer there was complete inertia of all uterine muscles, as well as those of the abdomen, which failed to respond to our combined efforts,

including the administration of remedies supposed to excite uterine contraction, massage, etc., and hemorrhage setting in from a partially detached placenta, I advised external podalic version, to which the doctor assented. The fœtal head was at this time resting in the right iliac fossa, or rather superior to it, and showed no disposition to engage in the pelvic cavity. The os was fully dilated, into which I hooked the first and second fingers of the right hand, spreading them apart, and made firm traction on the internal os, so as to hold the uterus inside. Dr. O. occupied a position to the right of the patient, and with the fingers of his right hand slightly curved, began making deep pressure in the left maternal inguinal region, drawing the hand toward him, the dorsum of which swept along the anterior superior edge of the symphisis pubis, at the same time with the left hand pushing the nates of the infant from himself. A foot was soon felt, recognized by the heel, seized, and the delivery of a living child was made in a few minutes and the child yet lives. The mother did not seem to suffer more than in an ordinary labor (not as much, for there was no pain) and made as good a getting up. No anæsthetic was used.

The second case was that of a colored woman, aged 21 years, small, delicate, with hip-joint disease, rendering her lame, and a distorted pelvis, anterior posterior diameter diminished. She was taken in labor and the writer was called. In all these cases (primipara) we are to make haste slowly; we are to exercise the virtue of patience. After forty-eight hours of seemingly useless efforts in position expedients, cajolery, promises and prophecies, I decided that a more energetic course of action must be entered upon—viz., podalic version, and called to my assistance Dr. O.

Chloroform was given to full anæsthesia, and the same course entered upon as in case one, except that the action was the exact reverse. Success soon crowned our efforts, and the delivery was moderately easy until all but the head was delivered, and this required much force and cleverness of execution and loss of valuable time, with a dead babe as a result. The inferior maxillary were wrenched from their attachments, and parted at the symphisis mentis. We estimated that the antero-posterior diameter could not have exceeded an inch and a half. We saved the mother. The babe weighed six and one-half pounds.

PLACENTAL EXPULSION.

J. H. HAUCK, M. D., TERRE HAUTE, INDIANA.

Labor is characterized by three distinct stages. The first stage is that of dilatation or the enlarging of the soft parts sufficiently so that the expulsion of the child may take place. In perfectly normal labor the average length of this period is from six to fourteen hours. This stage of labor is longer in primipara than in multipara.

The second stage of labor ends with the delivery of the child. Average time of this stage is from one to three hours, it being longer in primipara, as in the first stage.

We wish to speak more exclusively of the third stage of labor, or the expulsion of the placenta, or afterbirth. It usually requires from fifteen minutes to two hours to terminate the third stage of labor, and the average time is from twenty to thirty minutes.

After the child is born the uterus retracts and therefore grows smaller. In this process of retraction the walls of the uterus close about the placenta. Contractions of the uterus may occur at any time after the delivery of the child. It is usually safe to say that they almost always occur from ten to thirty minutes after the second stage of labor is completed.

As is well known the uterus is composed of muscular fibers which are capable of contraction and relaxation. The placenta, on the other hand, is not composed of contractile tissue; so it is almost void of these properties. When the pains or contractions do occur, the uterus contracts over the placenta and its site is therefore considerably diminished. The placenta cannot or does not retract to accommodate itself to the diminished condition and is partially torn from the walls of the uterus at the time of each pain. It may require several pains to wholly detach the afterbirth from its site of attachment. If, however, the placenta is wholly detached by the first pain it will present at the orifice, by its edge, and will most probably be delivered folded upon itself from side to side.

Detachment may occur first over the central or middle portion of its attachment. When this occurs a blood clot is formed between the detached portion of the placenta and the corresponding uterine wall. This is sometimes called the retro-placental blood clot. With each succeeding contraction, more placental

tissue is torn from its site and the clot grows larger. That portion of the placenta which is detached, presents first and is expelled flatwise.

Sometimes there is what is called an adhered or retained placenta. In such a case Credé's method is resorted to. Slight traction on the cord (this procedure is condemned by some of the recent writers) in a downward and backward manner may be resorted to. Hard, jerky or uneven pulling on the cord should never be attempted. If a considerable length of time has elapsed, and the placenta is not expelled, the hand is introduced into the womb in a conical manner and the placenta is gently and gradually peeled with the fingers from the uterine wall. After it is entirely detached it is usually expelled by the next contraction or two.

Credé's method is resorted to after the delivery of the placenta to check the tendency toward hemorrhage. There is always a certain amount of blood passed following placental delivery. The usual amount is seldom more than a pint. This amount may be increased or decreased according to the nature of the case in hand. In many cases after the third stage of labor is completed, the patient is nervous and restless and shivers; sometimes feels cold and usually is very weak. These conditions do not last any great length of time as a rule, and by the time the bed and patient are properly cared for, the mother feels fairly comfortable, which condition with proper uterine contractions permits the accoucheur to leave the patient to attend to his other manifold duties.

ANOMALIES AND CURIOSITIES OF PARTURITION.

B. W. MERCER, TIFFIN, OHIO.

The word anomalies, as we use the term, signifies a deviation from a specific type, or exceptions to the usual rule, using it of course as applied to parturition. Curiosities are many and those we speak of will only be those that some doctor or doctors have to meet, and I am sorry to say give some reason, or acknowledge his ignorance, as to why such is the case, and to begin with allow me to say I am not giving any reason why such is or is not the case. In answer to the many inquiries which come to

you as to why! doctor what caused such to be the case, and was she in fault herself to give birth to such, or was it fright or some disease that did the work, or did she mark the child?

Now I am aware some will answer one way, while others will answer another, and excuses of different kinds will be given. But now doctor be careful in answering, think of the old saying, "ignorance is bliss and it is folly to be wise," "in some cases." Possibly, indeed, it was the anomalous that was largely instrumental in arousing in the savage the attention, thought and investigation that were finally to develop into the body of organized truth which we now call science. Truly it has been said, facts are stranger than fiction. In all of these strange growths, we seem to catch forbidden sight of the secret workroom of nature, and drag out into the light the evidence of her clumsiness, and proofs of her lapses of skill.

In the beginning, the organs and functions of generation, the mysteries of sex, not the routine of digestion or of locomotion stimulated his curiosity. All students of primitive religion well know the role that has been played in primitive society by the genetic instincts. We note today when an anomaly is born there are different opinions passed, and there is a curiosity within ourselves, asking has this any likeness to others or are we alone? No, because nearly every journal has an anomaly or curiosity to report, and it is now time we have some way of reporting such and finding, if possible, why nature has failed to complete a certain work which to us seemed all important.

In the beginning of labor, especially after the first digital examination by the accoucheur, the question comes—"doctor, is everything all right?" How many of us have answered in the affirmative, when in reality we knew nothing of the conditions of the expected fœtus. Again we have examined and answered yes, but were not satisfied. Now the thing for you to do is to let some member of the family into the facts after you have examined so carefully you could have made no mistake. Of course this can not always be done as we may have anomalies of some part of the body that could not be discovered until after birth. Such has been the case many times. In the case of Huff's detailed description of the Jones' twins, born on June 24, 1889, in Tipton County, Indiana, whose spinal columns were in apposition at the lower end, the labor of less than two hours' duration was completed before the arrival of the physician. Both

sets of genitals and ani were on the same side of the line of union, but occupied normal positions with reference to the legs on either side. In this case an examination might to the accoucheur seem correct and at delivery be different.

We have also a record of Bohemian twins being born in New York, and the history given by Tynberg to the Medical Society of New York, May 27, 1895. The mother was present with the remarkable twins in her arms, crying at the top of their voices. These children were born at midnight April 15th. Tynberg stated he at first believed them to be separate and distinct children. Laloo who was born in Oudh, India, was the second of four children. He has been traveling through the country with different museum managers and has also married a lady of Dayton, Ohio. Last June I treated this freak for one week in our city, Tiffin, Ohio. And as I found him the parasite was firmly attached to the lower right side of the sternum of the individual by a bony pedicle and lower by a fleshy pedicle, and the intestines of the individual seemed to act as a rupture trying to pass through this pedicle into the parasite. The anus of the parasite was imperforate; the penis was developed of seeming cartilage, some urine passed through it without the knowledge of the boy. There was a slight growth of hair in the pubes. Perspiration and elevation of temperature seemed to occur simultaneous in both. They of course as you note are of the same sex, but have been exhibited as brother and sister, the parasite in female attire. The young man can use the English language well, is fairly well developed in all parts; shows signs of specific troubles as can easily be noticed. He gives his age as near 36 years.

My first experience of a curiosity was at the birth of a very nice girl baby of which labor was not out of the ordinary. Examinations and delivery reveals nothing until we came to the cord which was nearly ten feet long, of a ropy nature, and if the knots should stand for the old adage each knot another child, the mother should have at least thirty more. This has been six years past: both mother and child were doing well when I left home.

Second, I was called to wait on a lady in her eleventh confinement. I found a bag of water protruding which contained at least one gallon of fluid. As I went to move the bag containing the water it broke and the bag disappeared out of sight, and upon a vaginal examination I could find but slight signs of par-

turition with but little if any dilation of the os, but she was in great pain and they represented labor pains very much. So we gave the remedies we use to help bring on relaxation of the parts and went about other work for a few hours, leaving word for them to call if they noticed any advancement. I was called in six hours. Upon examination I felt what seemed to me a breech presentation. After another examination about half hour later I could feel advancement. I could notice prominence as a buttox but minus natal fissure and genital organs. Thus I informed the folks there was something out of the ordinary but could not say what it was. Labor was all right and would soon be over with, but the fœtus was not all right. All was over within a few minutes more and I had what seemed like a piece of flesh near the size of a new-born baby's body without any bones or cartilage except one perfect formed leg as naturally attached and complete as any limb. The rest of the labor was not out of the ordinary.

I was called to the third case of this kind early this spring. The woman had been suffering for several hours she said, and as this was her third child she said something must be wrong for it is not going right, as the others did at least. Upon examination I found all parts dilated and a large bag of water protruding. I ruptured the bag of water, of course expecting everything to soon be over with. Upon waiting a reasonable length of time I asked if she felt no advancement. She said no, doctor, it does not move. Again examining I found a very different condition. My hand came against a small round bony growth with ears on either side, but above it seemed a solid bone, across the superior strait. Examining more carefully, I found arm pits and arms just off from this little bony growth. I informed the family that we had a seriously deformed fœtus and could not expect a perfect child of it. Then I asked if they would prefer counsel as I had quite a work on hand. The husband and mother of the lady were both present, and said go ahead yourself if you can. So I did. Administering a reasonable amount of chloroform I went to work with a mind to deliver as soon as possible. Finding the shoulders of the fœtus firm and unyielding I brought down the arm and with a little traction the baby was born. It was without a head, the lower maxillary firmly attached to the upper end of the sternum. The clavicles and all were ossified as one bone. The skin and formation of the face was grown back over the upper

end of the spinal column without any of the bones of the face or cranium except the lower maxillary. There was a small fissure for the mouth, a small opening for nares. The eye balls were extra large, and were directly on top of the small bony growth. The lids were formed, but not movable, otherwise the child was natural and well developed.

My fourth case was of imperforate hymen in a primipara. After suffering severe pain, as she stated, in the stomach, for some time, I was called to prescribe. After watching the case carefully the looks of the woman led me to believe she was in labor and I told her so. The mother of the lady said, why, it can't be, they have only been married three months, and the girl has never menstruated in her life. The pains grew worse, and both parties holding that it could not be pregnancy, I insisted then upon an examination. I found a something pouching out very firm, not easy to examine for she said it hurt her very much trying to get around it, or to the side of it. I could find no opening at all, and she informed me the reason it was impossible for her to be pregnant was because coitus never had been complete with her at any time. I had been taught there could be an imperforate hymen and yet the party become pregnant. I proceeded to examine and then open the hymen, and the labor was complete in less than two hours and all was over, with a boy weighing eight pounds. Both are doing well now, and this was one year ago.

Now I do not want to tire you or try to tell you all my troubles and keep you from something so much better. There have been many cases perhaps more interesting, but these are the ones which caused me to choose this subject.

A PLEA FOR THE USE OF CHLOROFORM IN LABOR.

S. M. SHERMAN, M. D., COLUMBUS, OHIO.

Many practitioners are so timid about the administration of chloroform that they seldom use it to alleviate the pangs of childbirth.

I do not wish to advise any one to be rash in the use of any dangerous medicine, but in cases of labor with proper administration there is so little likelihood of any serious trouble and the

relief to the patient is so marked, that I would very much like to see a more general use of the anæsthetic in the lying-in room.

It is our duty as physicians to alleviate suffering in all possible ways, and the suffering of the parturient woman certainly demands all the aid which we are able to afford. Of course a certain amount of pain is inseparable from childbirth, but I do not believe in the policy of those old fogies who say, "nature must have its course." They might say the same thing of a boil, felon, tumor, or any of the ills which nature inflicts upon us. No, indeed! It is our duty to aid nature in effecting a cure, and our privilege to escape pain so far as we are able.

It is the severe, aggravating, and seemingly unavailing pains of the early part of labor, and those that seem unnecessarily severe throughout the case that call for our aid. Here the administration of chloroform, a few drops at a time, on a handkerchief or napkin spread over the face and the center pinched up so it will not touch the skin, will so modify the pains and quiet the nerves of a fidgety patient that even the doctor will feel relieved (from her complaints).

The effect of the anæsthetic is to subdue the pain and nervousness and produce relaxation of the cervical and perineal tissues to such a degree as to counterbalance the checking of the expulsive force which sometimes results from the anæsthetization. This may be continued indefinitely and when the last few pains are due full anæsthesia may be produced and the labor terminated without the patient realizing the agony of those few moments.

As to bad effects from chloroform in labor I have yet to see them and my experience in some hundreds of cases leads me to believe that the danger is overestimated. It is thought by some that anæsthesia predisposes the patient to hemorrhage after delivery, but I have not observed any greater tendency to that complication with chloroform than without it.

In some cases the pains are checked almost completely by the anæsthetic and it has to be suspended for a little time to allow the pains to gather force. As soon as the contractions begin the patient again screams with agony and implores you to give her more chloroform. In a case like this one can temporize with small doses till relaxation is well advanced and the head low down, then push your anæsthetic to full effect and slowly deliver with the small forceps, which thus carefully used will not produce any more damage than the unaided labor would.

I have not attempted to discuss theories in regard to the effects of chloroform but only wish to reassure the timid and urge them to a more frequent use of chloroform in their obstetric practice.

When a doctor has given it to women in confinement a few times, witnessed the relief it affords and received the blessings of his grateful patients, he will not be long in adopting it as one of his most efficient helps. It will increase his obstetric business and his confidence in himself at the same time, besides being humane.

DISCUSSION.

DR. CRAWFORD: I will cite one little incident which covers many cases of the same character. I was once called in to a first confinement. The patient was one of the most sensitive women I ever saw. She would not allow an examination. It would throw her into spasms when attempted. I was satisfied that her pains were true, and I gave her chloroform and delivered the child, and she went into a peaceful sleep. I handed the child to the sister to care for, as I always take care of the mother myself, and I always use bandages, and use a T bandage. The bed was cleaned, and when the woman woke, she said, "I have been asleep and had pleasant dreams; the birds were singing in the trees, the flowers were blooming by the brooks, and I was so happy." Then she said, "How soon will it be over, doctor?" and I told her it was all over, and showed her her child, and told her it had been delivered while she was asleep and having the beautiful dream. And the sister said, "The next time I have a child I will have Dr. Crawford attend me as he has you." I would never let a woman suffer. I have never had hemorrhage I could not control. Sometimes I give ergot, because it will continue the spasm of the uterus even if the chloroform has acted on the system generally.

DR. SHERMAN: I would caution against the use of chloroform. It is all right to use it when indicated, but don't go away and leave the patient before she comes out from the influence. The doctor just told about the patient thinking she was in heaven. The patient I have in mind was left too soon, and today she is in heaven in reality.

DR. GOSS: I use it in three-fourths of my cases, but wherever you have complications you don't dare use it. I presume

the doctor lives where there are not many complications of heart and lungs in the West. With certain heart troubles I fight shy of chloroform. It is different in different cases. The individual case determines the matter, and you must decide in each individual case whether you can use the chloroform. In some cases I never dare commence it.

DR. WINTERMUTE: The fact should be recognized that the use of anæsthetics in labor should never be undertaken except to the obstetrical degree. It should not be given to the surgical degree. It is remarkable how little is required during labor. You can frequently lull the patient into quiet and carry her through an ordinary labor of several hours with less than an ounce. A few drops at a time is all that is necessary to keep the patient quiet. Sometimes it depends upon the neighborhood in which you practice. In the city it seems that the majority of the women who consult you with regard to the expected delivery will ask if you give chloroform. A good plan is to grasp a napkin or handkerchief in the center and let it rest lightly over the patient's face, and have it dropped drop by drop over the center of the point where grasped during the continuance of the pain, and then discontinued when the pain subsides, and then begin again with the next pain. A recent writer on obstetrics suggests that we use an ordinary drinking tumbler with a handkerchief in it. A little chloroform placed on this can be given to the patient and allow her to smell this. As soon as she yields it drops from her hands and the effect will be enough for the pain. With the onset of the next pain she will reach and get the tumbler herself and begin the inhalation, and again as she yields it will drop from her hand. She thus does not get enough chloroform to do her harm and yet enough to ease her of her suffering.

DR. SHERMAN: I simply mentioned a few points in my paper to bring out this discussion. I have had no trouble, and I have given it as Dr. Wintermute has indicated on a handkerchief, and it can be continued indefinitely for three or four hours. The relaxation which comes will allow you to deliver with forceps, or you can let the case go on to natural termination. You always receive the gratitude of your patient and it frequently brings you fees.

DR. ALEXANDER: I use chloroform in the majority of cases. I only wished to point out the dangers which attend its use. I

do not believe one should be ready to use it in every case, and if he does he will have bad results. Some of you do not notice carefully, and you should not use it as routine practice. It should be used when indicated, and if not it will make trouble now and afterwards. Any one who uses chloroform without taking due cognizance of its effects will do harm, if he will only stop to think about it. We are apt to forget the bad side of the drug in our enthusiasm for the good.

THE EFFECT OF CHLOROFORM UPON UTERINE CONTRACTIONS.

B. J. ALEXANDER, M. D., HIAWATHA, KANSAS.

Chloroform, given in small quantities during labor, lessens the suffering of the expectant mother. A fact so evident has naturally led to its extensive employment for this purpose, not always, it is to be feared, with full knowledge of all its immediate and ultimate effects. For there is a mighty tendency in medicine to "jump at conclusions;" to assume that a drug once good is always good, and to use it to do a certain thing, with scant regard for its action in other directions. It is a sort of optimism run mad, and, like any other runaway, is dangerous, now that many will dispute the indispensableness of chloroform in obstetric practice. Its position is too well established for that. But no matter how well we may appreciate its merits, it behooves us while singing its praises, to give some thought also to its possibilities for evil. For even admitting that the number of these is small, they are still worthy of our consideration.

Aside from the ordinary dangers of anæsthesia, which are without doubt diminished during labor, about the only harm arising out of the use of chloroform is that induced directly or indirectly by its action upon uterine contractions. Its visible effect, relief of pain, is apparently not harmful. It seems rather to be beneficial, which indeed it often is. Rest, often much needed, it will give, and if this were all how easy it would be! But how is this easement produced? First of all by its general anæsthetic influence—the stilling of the nerves, the dulling of the brain. But chloroform is not merely a narcotic; it is an antispasmodic of the highest power. Convulsive movements of every kind yield to it as to no other drug. Of course antispasmodics are of different

sorts, acting in various ways; but in general they may be defined as agents that check spasms or cramps and relieve the associated pains. Now a uterine contraction is very like a cramp, and therefore we may expect it to be influenced by this class of drugs. True it is natural. But who is so acutely discriminating as to accurately distinguish between nature and un-nature. Being what is understood as a natural function, it is backed by nature's forces buttressed by a habit as old as humanity. On which account it may be more persistent than some other kinds of involuntary muscular action. Nevertheless there is enough in the analogy, and more than enough in the results of observation, to warrant the conclusion that chloroform may and does check uterine contractions very often, and modifies their force always.

We may expect therefore that labor will be slower when it is used, and this is true, though there are undoubtedly exceptions to the rule.

Naturally, then, we wish to know what harm if any this will do. First of all, if the pains are very strong, the retardation may even be beneficial. But if of only moderate force labor is certain to be unduly prolonged. This is an undesirable thing; for there is danger that, through the exhaustion of the mother or of the womb itself, the contractions may cease altogether. And this also is not desirable, even though we have reached a point where the labor may be terminated by forceps. The same is true, though in greater degree, when the pains are of the distinctly lagging type; and always there is the danger, nay the certainty, that the slowing influence of the drug will be prolonged, so that at the end, after the stimulus of the uterine contents has been removed, the muscles of the womb will have become so relaxed that they will not follow with sufficient promptness the expulsion, and so induce hemorrhage. Indeed I am convinced that post-partum bleeding is more frequent after chloroform has been used. Startling and dangerous flooding it may not be. And yet it may be very serious. For sudden collapse and death are not the only things to be feared. The amount of blood lost may be small—but little more than normal. Yet the relaxed state of the womb tends to the formation and retention of clots, which exposes the woman to the tortures of after-pains. Or if these, good and hard, with their saving grace of a cleaned-out uterus, do not come, then the dangers of absorption, septic and otherwise. After that, unless the patient has exceedingly good recuperative powers, sub-

involution with all its train of uncomfortable consequences, must be reckoned with.

If this is prolonged, uterine displacements must inevitably result. Many a woman, as you all know, owes her perennial backache to this cause. And I doubt not that, if the whole truth were known, a large percentage of these could be traced back to the injudicious use of chloroform, or to neglect of proper precautions afterward. It must not be supposed that I condemn its use unconditionally. Far from it. For aside from its function as a pain reliever, it is for many things very useful. For example (and this has already been suggested) when the pains are abnormally strong and it is desirable that the force of them be modified; or when near the end of labor the head is pressing too hard upon a slowly yielding perineum, it will hold back the contractions and give the resisting muscles time to give way. Here too the antispasmodic action of the drug is exerted upon the perineum itself, so that a double purpose is served. Much more might be said in its favor, but we need not take the time or space. Instead let me epitomize this paper in a few rules for the non-use of chloroform in labor.

1. Under ordinary circumstances chloroform should not be given until near the end of labor.

2. When after trial it is found to markedly effect the contractions, unless these are very strong, chloroform should be promptly discontinued.

3. Chloroform should never be given when the pains are very weak, unless for operative interference, and used then with great care and followed by prompt measures to bring about firm contraction.

THE HAND IN OBSTETRICAL PRACTICE.

J. H. GOSS, M. D., DECATUR, GEORGIA.

Since the value of asepsis has been fully demonstrated, and the free use of instruments in obstetrical practice rendered much less dangerous, there is developing a strong disposition on the part of many practitioners to resort much more frequently to instrumental delivery. There is more eclat, more tempting fees, and often a saving of time, and an apparent shortening of the suffering of the patient by the use of instruments.

Knowing that sterile instruments are, now, much safer than were the instruments used in the days of the Chamberlain, and that with modern improvements in the variety and mechanism of instruments, we have great advantage over the practitioners of even a few years ago; therefore, we find ourselves ever tempted to forget and abandon the old, and tried methods of the past and sometimes perhaps hurrying to get into the push, and "rushing with the multitude sometimes to do evil" in the untimely and uncalled for use of instruments.

Before using the hand a thorough preparation of our patient, as if for a surgical operation, is first of all, to be desired, especially observing that everything that is likely to come in contact with the hand of the doctor be made as sterile as practicable. This preparation is not only a safeguard against infection, but keeps the mind of the patient diverted, and gives her the assurance that everything is being done for her safety that modern science could suggest.

Keeping the patient busy with the hot hip-bath, the hot vaginal douche, and, if need be, the warm enema with perhaps a little salt and soap, and lobelia in it, is much safer and better than giving the hypodermic of morphia and atropia, or than giving pulsatilla and gelsemium, or such other drugs as are intended to tide over the period of depression and suffering incident to the first stage of labor.

With our woman, and her clothing and bedding thoroughly prepared, especially if it is to be a tedious or complicated case, the doctor should have his nails well pared and cleansed and his hands and forearms as well cleansed as if preparatory for a capital operation. It is superfluous, perhaps, to say that unclean and obnoxious persons should be kept out of the room or, at least, from off and around the patient's bed. Everything thus prepared, a sterile hand well lubricated with carbolized vaseline or lard (or, if there is a rigid os, with lobelia, gelsemium or atropine in the lubricant) becomes a ten-fold more valuable aid than all obstetrical instruments combined, and yet sometimes the less it is used the better. The first examination may be made satisfactorily with one, two or more fingers as may be required, but should be sufficiently thorough and protracted or repeated at suitable intervals until a knowledge of the nature of the presentation is obtained.

With the soft part of the finger, or fingers, we may feel

around inside of the cervix, not only to fully trace the sutures and locate the fontanelles, but to determine the degree of rigidity of the os, bring it forward if necessary, and to detect and push back the cord or anything else that may be trying to come along with the presenting part and thus obstruct the labor. If there be a partial placenta previa, endangering hemorrhage it may be thus detected; or if there be any condition requiring forced dilatation the hand thus prepared is the safest and surest of all dilators of the cervix. The cautions are: Avoid giving too much pain, for pain means mischief; avoid starting a rupture of the cervix; avoid rupturing the water-sack prematurely; avoid too much manipulation under the arch of the pubis for fear cystitis, or urethritis may be induced. If the case be tedious pressure against the labiæ or back against the perineal muscles helps the bearing down tendency and encourages the woman to feel that she is getting through, and if judiciously practiced helps prevent laceration.

Support of this kind seems to benumb the nerves of the parts and assisted by pressure over the region of the pubis and especially over the left inguinal region strengthens and prolongs the pains safer and better than ergot or other oxytoccic agents.

To use the hand satisfactorily in examining, supporting, relaxing or turning it is often better to place the patient across the bed with the hips resting on a Kelly's pad and the nates projecting well over the edge of the bed, with the knees supported as in forceps deliveries. When this position is assumed, for forceps delivery, we often find that a clogged labor commences anew and the presenting part begins to again advance and recede under the influence of the pain. During the passage of the presenting part the hand spread out over the perineal region with the thumb on one side and the fingers on the other rubbing rapidly the stretched fibres of the labiæ, and with the palm of the hand at the same time supporting and rubbing back the distended perineum, delivery can be hastened and the danger of laceration lessened. If the nates are projecting well across the bed and the patient's knees properly supported, both hands may be used to rub, support and push back the labiæ and perineum. In days gone by such as this would have been considered "meddlesome midwifery," but now with an educated soft and sterile hand it becomes safe practice to thus aid nature in

supporting or in helping to relax muscles as the case may require.

The sterile hand may be freely used in removing the placenta, clearing the uterus of the post-placental hematoma, and, if need be, in detecting the source of a hemorrhage, and by its stimulating influence within promote contraction in conjunction with a kneading process on the outside. There should be no traction made on the cord except such as may be needed to guide the cone-shaped hand to within the margin of the uterus where a portion, or if need be, the entire placenta may be seized and withdrawn with the hand, waiting always for the assistance of the expulsive influence of a pain. If kneading the uterus on the outside does not induce contraction, instruct the patient to clench her hands firmly together, draw a deep, full inspiration, press the clenched hands close to the mouth and blow steadily and strongly until "out of breath." The muscular fixation, the deep draft of cold air, and the reflex influence of the exhausting process, are almost sure to encourage a contraction. While this is being done tell your patient to bear down, that she must have a pain.

As was intimated the educated hand is most useful in detecting the source of hemorrhage and may compress or restrain until packing or stitching gives complete relief. In case of profuse hemorrhage from within the uterus or from a ruptured cylindrical artery, seizing the neck of the uterus and bringing it down to the margin of the vulva, until a vulcellum forcep can be obtained to hold it in position for packing or for repair of the laceration, will often cause almost a complete cessation of the hemorrhage. The sterile sensitive educated hand in obstetrical practice is nature's own instrument, and is seldom to be supplanted or supplemented.

ECLECTIC REMEDIES IN THE DISEASES OF PREGNANCY.

FLORENCE TIPPETT TRUAX, M. D., TALLAPOOSA, GEORGIA.

In the pathological conditions dependent upon this physiological period, Eclectic remedies meet the desired end, and fulfill our most sanguine expectations. Indeed, we maintain that here, as elsewhere, the means used in other phases of wrong life, are superior to any other in existence.

When we consider the delicate and irritable condition of the

stomach of the pregnant female, we do not think it unreasonable to suppose that only those agents having a combination of both efficacy and mild action would prove superior to those whose action is such that only the desired end fails to be attained, but the digestive apparatus be shocked and unstrung until the last state of the patient's system is worse than the first. So, in considering the application of Eclectic remedies to the diseases of pregnancy, we will take up only those of purely Eclectic parentage, giving those of doubtful parentage a wide berth.

When first we began to study Eclectic medicine, we were taught that any indicated remedy was the proper one for administration, no matter what the name of the lesion under consideration. Well do we remember the voice which called this association to order saying, "The condition, gentlemen, the condition." Vomiting or morning sickness is usually the first condition for which we are called to prescribe. Since this condition is one of those strange yet reasonable contingencies which we class as "sympathetic," why may we not depend upon those remedies which influence the sympathetic nervous system, and whose indications are so plainly in evidence?

With the full, thick pallid or yellow tongue showing the prints of the teeth, we think of the stand-by, nux vomica in minute doses, perhaps associated with hydrastis as an adjuvant remedy. With much nervousness, cramps in stomach, or cutting pains in abdomen, cypripedium, lupulin, scutellaria or pulsatilla, or a combination of these valuable remedies. Of the last named I wish to speak a little further. In this disturbance, accompanied by great fear, depression and loss of vitality, pulsatilla is a favorite remedy, and should I further find that the vomiting leaves or is preceded by a greasy taste in the mouth, then prescribing pulsatilla becomes a pleasure, for sure and certain relief is in sight.

Here, as elsewhere, macrotys has a wide field of use; when the vomiting is accompanied by the sorness of muscles, or the tensive wave-like pain in limbs, we think of cimicifuga combined with caulophyllum. We must not forget that old remedy, lobelia; once when endeavoring to subdue an obstinate case of vomiting in pregnancy, by applying a local agent to the os uteri, we could but note the thick, doughy condition of the os, and that seemed to call for lobelia inflata and a full, flabby tongue said the same thing. We administered the agent with the happiest

effects and it proved its worth to the end of the trouble. Locally, the old-fashioned lupulin and stramonium poultice, or the Eclectic irritating plaster applied to the epigastrium have served me well. Nor must I neglect to mention, as should have been done before, the internal administration of gelsemium, when indicated by the flushed face and contracted pupils. We have dwelt on this condition at some length, for how often do we hear one physician say to another, "And, doctor, what do you prescribe for the vomiting of pregnancy?" The ptyalism of pregnancy calls for hydrastis used as spray or gargle, and our later remedy echinacea has proved a useful agent in many cases.

The diarrhea of pregnancy becomes a serious problem sometimes, when free action of the intestinal tract is the end to be desired. Plainly our so-called astringent remedies are out of place, and here as elsewhere, we may test the virtues of our agents with every confidence. Epilobium was Prof. Scudder's remedy, and it has done wonders in some cases under my observation. Xanthoxylum fraxineum has been a favorite of mine, especially if associated with nux vomica or hydrastis when all evidences pointed to the diarrhea as arising from atony of the digestive tract.

When we find the narrow, pointed tongue with red tip and edges, showing irritation, instead of atony, we use aconite and ipecac, here, just as we would, did we find this indication in any other pathological condition.

The opposite of the above condition, constipation, is one so frequently met with that we may be forgiven if we devote some time to its consideration. Gentle, gradual, impressment of the bowels is the end in view, and this becomes a matter of close study. While we are taught that this condition is dependent upon the pressure of the gradually developing uterus upon the rectum, diminishing its diameter, we must also remember that the same reasons for constipation may obtain here as well as when pregnancy is not present.

Belladonna is not usually considered a cathartic, but it will produce daily alvine evacuations if given on its specific indications, which fact makes it an Eclectic remedy, if for no other. Neither is bryonia alba catalogued under this head, but it does the work, if its indications are present. Iris versicolor is a remedy whose virtues I greatly prize, and whose indications need not be reiterated, ptelea trifoliata has been of great value, its action of

the mucous structures of the body, seeming to be particularly applicable in this case. Gastrodynia is met with the compound tincture of lobelia and capsicum, and I have relieved more than one violent case with hypodermic injections of Sp. gelsemium, in doses of three to five drops.

Headache is such a common complaint among pregnant women that we are often at our wits' end to prescribe "something quick" for the condition. Pulsatilla is the remedy most often called for, by a direct line of indications. Hyoscyamus seems to cover a wide range of cases. Scutellaria, cypripedium and helonias dioca are along the line of our prescribing and we need not prescribe at random if we but search for direct indications with a conscientious spirit.

One of the most annoying of the lesions of pregnancy is the bladder complications. The milder so-called diuretics are called for to meet these conditions. Althea, epigea, eupatorium purpureum, hydrangea each have their respective line of indications and we need not go far astray if we are disposed to search for them.

Palpitation of the heart is a condition of every-day occurrence. Cactus heads the list as a remedy for this condition. Lobelia, pulsatilla, mitchella and rhus tox, making close seconds as to efficacy when directly indicated.

For the cough of pregnancy, drosera and grindelia robusta are frequently called for, not because they are cough remedies, but because they meet the peculiar kind of cough that accompanies the pregnant state.

Mastodynia is not hard to keep under control with phytolacca, belladonna, iris versicolor and echinacea at hand, and with the range of use which these remedies possess as both internal and external agents. To meet the cramps of the lower extremities, so common in the latter months of pregnancy, the viburnums, scutellaria, mitchella and gelsemium may be used to great advantage. The jaundiced condition so often present in pregnancy yields to wahoo, and that sovereign remedy, chionanthus.

You will observe we have not attempted to discuss other than drug treatment, we have not considered mechanical or local applications, except where the latter distinctly touched the subject in hand, we want to establish this: The greatest and best armamentarium the world has ever known contains the remedies calculated to dissipate or at any rate ameliorate those diseased conditions

peculiar to the pregnant state. We can not meet these conditions by prescribing at or for the name; it must be ours to search patiently for the evidences of wrong life, not being content with a "recommended" remedy, whether it be distinctly indicated or not. "It's dogged as does it," and we might proceed to illustrate by calling forth reminiscence of individual cases where the prescribed line of remedies failed, while the indicated (specially indicated) agent did the work, but, as Rudyard Kipling says, "That is another story."

PUERPERAL FEVER.

W. W. WHEAT, M. D., MECCA, INDIANA.

Puerperal fever is a name which usually stands for a group of disorders, attended with a rise in the body temperature, following the delivery of the child. It is one of the most fatal diseases to which a child-bearing woman is liable, and one which should receive careful and diligent study.

In a recent case, Mrs. M., aged 21, a young primipara who had been confined, presented the following causes to which her subsequent trouble was ascribed. The sudden and extreme rise and fall of the temperature, the damp, foggy atmosphere seemed to make impressions on the diseased parts. Retention of the blood clots, laceration of the labii, the powerful contractions of the uterus and abdominal muscles, when in labor, the severe shock of the nervous system, the suppression of the lochia (the woman being lifted straight up, contrary to instructions), the weakness or partial paralysis of some of the parts, were factors which produced some of following conditions.

The absorption of septic material, vaginitis, inflammation of the labii, metritis, peritonitis. While the absorption of septic material is the most important of these, I think the amount absorbed should be carefully watched and medicines given in such quantity as to counteract the influence of the absorption.

In twelve hours after the delivery of the child, the patient was visited and upon verbal examination, I found that the bowels had not moved and no urine passed. She seemed to be in no pain and much stronger than expected. Twenty-four hours later the patient was again visited and no water had passed and there had been no evacuation of the bowels. The temperature 99 2-5 de-

grees, pulse 90. There seemed to be a desire to urinate, but she could not. The face was pallid, and a slight tinge of yellow, while the tongue was coated with a thin layer of white. On making a vaginal examination I found the left labia minora lacerated, and the right labia majora torn, and exposure of the gland of bartholine. Twelve hours later the patient was again visited, the temperature 100, pulse 96. The lochia had not appeared. Twenty-four hours later the patient was again visited; temperature 100, pulse 96. Twenty-four hours later the patient was again visited; temperature 100, pulse 96. Twenty-four hours later, this being the fifth day, the patient was again visited in a hurry, temperature 104, pulse 130, her abdomen was much swollen and very tender. While her face was getting much paler and there were dark streaks down on either side of the neck and under the eyes. The eyes were slightly sunken, and the patient was lying quiet, not noticing scarcely anything and, at times, there was a frontal headache with a feeling of nervousness. The breath was fetid and there was great prostration with a cold, clammy sweat on the skin. The muscles seemed feeble and flabby.

On the sixth day the patient was again visited and the conditions which I named before were present and increased in severity. The odor from the cloth much more offensive. The seventh day the odor was so offensive that one could with difficulty stay in the room. The coat on the tongue had become dark brown and very thick, the cheeks turning a slight tinge of purple. The patient did not sleep or rest well at night. On the eighth day the odor was so strong that it penetrated the walls of the room and caused one member of the family the loss of appetite so that she was unable to eat. There was a discharge from the womb of a thick, yellowish green looking matter with a few small blood clots. On the ninth, tenth, eleventh, twelfth and thirteenth day there was a decline in the conditions present so that she was able to be discharged on the last named day and she grew better until well.

In the treatment of this case I used a catheter to relieve the bladder and an enema for the bowels after the first thirty-six hours. The second day I used pulsatilla for that nervous tremulous condition. The third and fourth day I used the same as the previous day. On the fifth day the treatment was somewhat different. I used warm dry hops to the abdomen, then into a half-glass of water I dropped veratrum twenty drops, lobelia

twenty drops, pulsatilla ten drops, and directed a teaspoonful to be given every hour. Then into another half-glass of water I mixed echinacea one dram, and directed a teaspoonful to be given every two hours.

With aid I placed the patient crosswise on the bed and drew her hips to the edge and put each foot on a separate chair. Into two quarts of aqua I dissolved potassium chlorate, two drams, and injected this into her vagina, washing and cleansing it thoroughly. Then I injected two quarts of warm water into the rectum and secured a passage from the constipated bowels. On the sixth day the temperature dropped to 103, pulse 120. The medication of the previous day continued.

On the seventh day I used the veratrum, pulsatilla and lobelia mixture, and in a separate glass I dropped baptisia ten drops, echinacea one dram to aqua four ounces, a teaspoonful every two hours.

In two quarts of water two ounces of sodium biborate was dissolved and used as a douche in the vagina and the best results obtained from this. It changed the character of the discharge and lessened it somewhat. On the eighth day the same medication was used, except that sodium benzoate was given to the extent of four doses every three hours, two of which did good and the other two did not, and the sodium biborate solution was increased to two and one-half ounces. In addition carbolic acid was used to the cloth and after this the discharge was less and the horrible odor gradually disappeared. The ninth, tenth, eleventh and twelfth days the same medication was continued, when the temperature dropped to 100, pulse 90. After this the doses were lessened and the patient grew better. On the thirteenth day the patient was very much better and medicines of a strengthening character were used. She was discharged and no return of the trouble was reported.

MY OBSTETRIC OUTFIT AND HOW I USE IT.

J. R. BORLAND, M. D., FRANKLIN, PENNSYLVANIA.

The following are instruments I carry in my obstetric case: A pair of good obstetric forceps (I use McWhinney's short-handled and like them better than any others, the long-handled being cumbersome and seldom needed and I seldom carry them);

next the blunt hook, a dull curette, perineal needles, pearl buttons and ligatures. I employ pearl buttons instead of quills in repairing perineal tears. The use of the instruments named being understood, I need not say further than to emphasize that the curette should always have a place in the obstetric bag, as in case of miscarriage or abortion it is most essential in removing the placenta. It is well also not to forget to put in a small roll of absorbent cotton.

Remedies.—A good fluid extract of ergot, chloroform, specific gelsemium, saturated tincture of cinnamon bark, aromatic spirits ammonia, a four-ounce vial of best brandy, antiseptics, hypodermic case and pocket vial case. I seldom use ergot to expedite labor, as when the stage in which it may be used is reached it is better to apply the forceps. Chloroform should always be carried, as in case of turning or perineum repair it is indispensable. Gelsemium I give in case of strong, futile pains with rigid os, a teaspoonful of the tincture, and repeat in thirty minutes. Two doses will usually bring the desired results. Tincture of cinnamon I employ to control post-partum as well as antepartum hemorrhage. Aromatic spirits of ammonia is a valuable remedy to carry at all times; if the patient becomes exhausted or faint a teaspoonful with two or three tablespoonfuls of brandy in half a tumbler of water, one or two good swallows every ten or fifteen minutes, has a wonderful bracing effect, which will elicit the gratitude of your patient. In case the womb does not contract after delivery is completed and hemorrhage supervenes, if proper manipulation of the uterus does not relieve it, I mix and administer the following: Fluid extract ergot and aromatic spirits ammonia, of each two drachms; tincture cinnamon, four drachms; brandy, three tablespoonfuls; add enough water to fill a tumbler two-thirds full and have the patient take a good swallow every ten or fifteen minutes till the hemorrhage is controlled, then every half hour or hour as needed. This combination has never failed me. The aromatic spirits of ammonia is the quickest diffusive stimulant at our command, when given by itself or in combination. Absorbent cotton is about the best dressing for the funis.

Directions having been given for the care of mother and child, before leaving you should put up three or four powders of morphia, one-fourth of a grain; Dover powder, five grains each, and direct one to be given every three or four hours as needed for after-pains. I never could see the sense of the physician

leaving his patient without leaving something to control after-pains, as I have known some to do. If my patient is out of town and I do not expect to return I leave some of that old-fashioned but too often neglected remedy, antibilous physic, two parts, and cream of tartar, one part, mixed, with directions that a teaspoonful be given on the second night after confinement and repeated the following morning if needed, and if any of the powders before mentioned are left, to give one after the cathartic has acted properly. The cathartic not only cleanses the primæ viæ, but will carry off coagula and thus cleanse the womb, and the danger of septicemia is obviated. In my early practice septicemia was designated "puerperal fever," and its treatment was poorly understood, but in these days the doctor who attends a case from start to finish and permits her to have and die with septicemia should be severely called down.

In case of perineal rupture I use pearl buttons instead of quills.

The physician should always carry his hypodermic case, furnished with tablets of strychnia, nitro-glycerine, etc., to be used as indicated in case of prostration or collapse. Should eclampsia supervene the administration of tincture veratrum vir. hypodermically, in five to ten drop doses, will usually relieve, but may cause emesis, which will do no harm. The tincture of gelsemium in doses of from thirty to forty drops may be used instead in the same manner. If the spasms do not let up in thirty minutes or an hour, repeat the hypodermics in the other arm or limb. In case of threatened collapse from hemorrhage or some other cause brandy may also be employed hypodermically in alternation with the strychnia or nitro-glycerine.

TREATMENT AFTER DELIVERY.

LEE STROUSE, M. D., COVINGTON, KENTUCKY.

This topic is one that at times becomes very interesting to the medical attendant, and even to the point of being serious. Sometimes there is hemorrhage. You may think your patient safe when the womb is filling with blood. No outward signs are manifest for from one to three hours, when she becomes faint and a collapse seems imminent.

Recently three hours after a delivery, which was a normal one, I was telephoned for, and on arriving at the patient's bedside I found the womb greatly distended, the patient was pale and weak, the womb was full of blood clots. I broke them down with my fingers and with the other hand brought pressure upon the fundus. Clot after clot was removed until its cavity was empty and firm contractions had. The bandage was pinned more securely. I think there was fully half a gallon of blood and clots. I administered some ergotine powders. There was no more hemorrhage and she made a nice recovery. This was my second hemorrhage of any consequence in my practice, both treated the same, with like results.

Lactation will be scant for a few days after the loss of quantities of blood from the circulation, which may need a little medicine to help make blood, such as iron and some of the bitter tonics. A small amount of jaborandi may be administered to assist in stimulating the secretion of milk and other secretions also.

Usually if the womb contracts firmly immediately after the expulsion of the after-birth there is little danger of hemorrhage, yet with this condition before us we will occasionally have a hemorrhage, seemingly without any reason whatever, in which case the patient will have to be closely watched and conditions met as they present themselves.

I have always relied upon a well-drawn bandage and the administration of ergot, cinnamon and ergotine. I use the same treatment after miscarriage and abortion. When the after-flow is scant there is generally trouble brewing and means should at once be resorted to to induce a better flow, or puerperal fever is likely to develop. If there should be retained placenta there is but one thing to do—remove it at once. If the after-flow seems offensive, vaginal antiseptic injections should be used, sufficiently often to obviate the unpleasant scent and odor, keeping things perfectly clean. For internal medication I administer macrotys and echafolta. I for one am opposed to the use of any injections whatever in the normal state after delivery and ordinary recovery, only when necessity demands it, otherwise it is bad and meddlesome practice.

If one or both breasts become caked and swollen I administer aconite and phytolacca internally and apply hot lard and turpentine with massage. If this inflammation progresses to suppuration, which is the case occasionally, I apply poultices and

lance when fluctuation can be had, injecting peroxide of hydrogen as needed, keeping the opening from healing too soon by the use of the pledgets of cotton introduced for a few days, when the trouble will be at an end. Quite commonly piles put in their appearance, to the great discomfort of the patient. I apply stramonium ointment freely. A little gelsemium will help control the milk fever when that condition is present.

The bandage spoken of above should be worn for two or three days, then discarded, leaving nature to care for the abdominal wall. The patient should remain in bed for about the first ten days, this being about the required time for involution to take place.

The new-comer should have the breast as soon as dressed. The nipples should be looked after and cared for if they get sore.

A light but nutritious diet should be had, eating moderately. The only thing I discard is meats while the patient is in bed.

If unfortunately there is a rupture of the perineum this should be repaired at some convenient time as soon as the flow has ceased and the strength of the female will admit. If the accoucheur is unable to do this himself he should have the services of a competent operator. This perineal rupture should not be allowed to remain unrepaired, as it supports the floor of the pelvic viscera. If let alone will bring reflex trouble later on.

DISCUSSION.

DR. TEAGUE:—The repairing of a rupture of the perineum should be done at once, or as soon as the woman is cleaned up, and not left until after the discharge has ceased to flow.

DR. NESBIT:—I would like to ask the doctor why he keeps the patient in bed ten days. If the labor has been normal and the patient progressing well, why not let her up or assume a somewhat reclining position the second or third day if they do well?

DR. PRICHETT:—I was about to remark on leaving the woman in bed ten days. I do not always do it. My wife says it is not right. She knows. She has had six children. "Keep me in bed ten days and I can't get up at all," she says. Let some of them get up in three days and they are all right, but I am careful about it. It is very easy to make a mistake. In a practice of thirty-four years I have never kept a woman in bed ten or nine days. I have no time set for that. I have allowed them

to get up carefully, slowly and easily, so as not to strain any portion of the anatomy, and I have had excellent success. I have had no puerperal fever to contend with or prolapsus from getting up too soon. I give them plenty to eat, plenty of good blood-making food and let them gain strength.

DR. WILMETH:—It seems, as the last speaker said, there is no hard and fast rule as to the duration of the puerperium. It seems, however, it would be a dangerous rule to allow every ordinary case to get up on the third day. You will have hemorrhages frequently. While you must encourage involution and the womb to assume its natural dimensions, you know it often reacts and relaxes, and if you get the woman up on the third day you are in danger of incurring hemorrhage that would not otherwise occur. It will frequently prove a grave mistake.

DR. BUSHNELL:—I want to commend what Dr. Wilmeth has said about allowing any and every patient to get up on the third day. Some can get up in two days and suffer no inconvenience, and others cannot get up in ten without suffering. But there is a series of exercises that any physician could allow his patient to take after the third day. Move the arms and limbs back and forward and up and down, and it will be very beneficial. Intra-uterine douches should be avoided as far as possible. If given it should be very carefully and see that the douche point enters the fundus fully and see that the flow does not extend directly towards the fallopian tubes. If not you will have clot, and if you leave some of your fluid in the uterus you are almost certain to have a chill, followed by high temperature.

DR. STROUSE (closing):—There can be no hard and fast rule. I believe the woman needs a rest, and I believe ten days in bed will hurt no one.

ECLAMPSIA (CLINICAL REPORT).

S. WITT, M. D., NORTH DANA, MASSACHUSETTS.

Every doctor of much experience knows what it is to stand in the accouchement room and see the patient pass into convulsions. Such a condition is truly startling.

Some twenty-five years ago I was called to attend a lady in confinement, of robust habit, not more than twenty years of age. Everything went well for three or four hours and bid fair to go

that way to the end, but suddenly she complained of severe pain in the head and in a very few minutes she was convulsed. I immediately gave chloroform and sent for another physician. As soon as he arrived the patient was completely anæsthetized and soon delivered. I at once gave one-half of a grain of morphine sulphate, hypodermically. She soon had another convulsion. I then gave one-fourth of a grain more in the same way. That completely stopped the convulsions. I then put the patient upon potassium acetate, twenty grains, once in four hours until no trace of albumin or casts remained. Complete recovery followed.

Case No. 2.—I was called in council to see a case of eclampsia. The lady had been delivered and lay in an unconscious condition from the effect of the spasms. The doctor had told the relatives that the patient could not live. I immediately drew some urine and analysis revealed albumin in large quantity. I advised that one-half of a grain of morphine sulphate be given hypodermically, which was done. The patient soon had another spasm and was given one-fourth of a grain more the same way. No more spasms followed. She was then put upon potassium acetate, twenty grains once in four hours until fully recovered.

Case No. 3.—I was called to a lady at the beginning of the seventh month of gestation. She was in convulsions. I immediately put her under profound anæsthesia with chloroform, dilated the os and delivered the patient. I then gave three-fourths of a grain of morphine sulphate hypodermically. That stopped the convulsions. This was followed with potassium acetate, twenty grains once in four hours until she was well.

Case No. 4.—I was called to a case of labor—a strong, healthy-looking woman, not more than twenty years of age. All went well for an hour or so when suddenly she stiffened from spasm. I immediately placed her in position and delivered her in a few minutes. I then gave her one-half grain of morphine sulphate hypodermically. Two or three convulsions followed and I gave one-fourth grain more, which quieted the spasms. I then followed with potassium acetate treatment, same as with the others, and she recovered in a short time. These were all cases of primipara.

SECTION OF GYNECOLOGY

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HYSTERO-MYOMECTOMY.

Q. ROBERT HAUSS, A. M., M. D., SELLERSBURG, INDIANA.

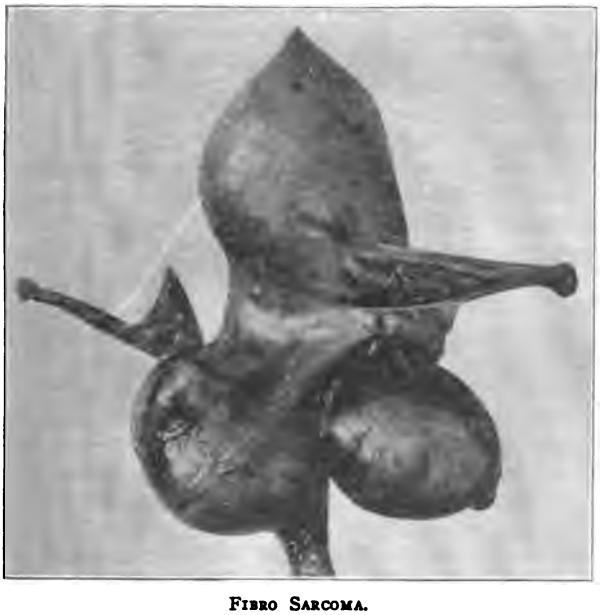
Tumors develop in connection with the uterus as often perhaps as in connection with any other organ of the body. The womb occupies a front rank as to the variety of growths that invade its structure. The preponderance of tumors in woman is largely due to the susceptibility of the uterus to neoplasms. Two classifications are generally recognized. First, where the neoplasms start from the substance of the womb proper and are made up of connective tissue or muscular fibres, or both. This group includes fibro-myoma and myxoma, which are clinically benign tumors and represent histologically mature connective tissue, or unstriped muscle. Second, sarcoma, which represents immature or embryonic connective tissue.

The second classification includes those neoplasms which originate in the mucous membrane of the uterus and are composed largely of epithelium. This division embraces adenoma and certain polypoid growths. Papiloma, which clinically is semi-malignant, and carcinoma, which is always malignant.

The photographs presented with this paper represent a fibromyoma of the womb and two fibro-sarcomata closely connected with the womb, but separate from it and from each other. The last mentioned you will observe developed from the lateral wall of the uterus between the anterior and posterior layers of the broad ligament, and filled the entire pelvic floor.

That this case is unusual is evident from the fact that an extensive research fails to disclose a tumor answering the description of the one herewith presented. The development of the two tumors occupying the pelvic floor had pushed the womb toward the diaphragm to such an extent as to greatly stretch the

FIBRO MYOMA.



FIBRO SARCOMA.

vagina and elongate the os. You will readily recognize the vaginal tract laid open, in the photo representing the tumor mass dissected.

As stated a fibroid tumor is chiefly composed of smooth muscular fibers, or, more correctly speaking, they consist of the same histological elements as the uterine walls themselves; that is, unstriped muscular fibres and connective tissue. All the neoplasms belonging to this class invariably contain both kinds of tissue. The varying proportion of one to the other determines whether we have the type that approaches pure myoma, or, on the other hand, what would approximate a pure fibroma.

If the tumor represents merely a simple hyperplasia of uterine tissue there is a preponderance of muscular or connective tissue elements, and in this case we have a myomatous tumor. On the other hand, if from the incipiency of the new formation the connective tissue predominates, or if it does so secondarily by a process of fibrous induration, then the muscular tissue being held in subjugation, so to speak, the result is almost purely fibroma.

The fresh specimen presented conditions that lead me to believe that the last named conditions predominated, particularly in the womb mass, hence my diagnosis of fibroma. The theory has been advanced, and I think this specimen will demonstrate the theory to a fact, that a sarcoma is a secondary metamorphosis of fibro-myomata; that, therefore, fibro-sarcomata are always fibro-mata which have undergone sarcomatous degeneration. The transformation of fibro-myomata into sarcomata is, I think, demonstrated by the fact that fibromas have been excised and later bodies attached to the stump of the amputated fibroma proved to be sarcomatous. The tumor presented is very suggestive of such a degenerative process.

The two lower masses presented the anatomical characteristics of fibro-sarcomata, inasmuch as they were roundish isolated masses of a firm consistency, fibrous and muscular in structure. So much for the etiology, histology and diagnosis. Now as to the operative measures and after-treatment.

The patient, a Miss S., aged 38, from Louisville, Kentucky, was received at my private hospital in May, 1903. She had been under my treatment for nearly two years previously. When the patient applied for treatment she was much reduced in flesh and strength and had the anxious expression so characteristic of extreme debility. The usual history of painful, profuse and protracted menstruation was obtained. When I first exam-

ined her I detected a symmetrical spherical mass which closely simulated a pregnant uterus. The characteristic resistance to palpation was noticeable—the dense and unyielding feel. At this time the lateral masses could be distinctly felt and the development was so slow that my treatment was expectant, inasmuch as the care of an invalid mother prevented an operation. After the death of the mother the tumor mass seemed to take on an activity that was very surprising considering the previous slow development. This no doubt was due to the inquietude the patient was subjected to during her long confinement in the sick room.

The increased enlargement of the abdomen was a source of extreme embarrassment to my patient, and the general discomfiture arising from pressure and encroachment upon other organs reduced her to a semi-invalided condition. She told me after being advised that the time had come when we must act so far as an operation was concerned; that she was ready to do as I thought best, inasmuch as she would rather be dead than endure the mental and physical strain any longer. Accordingly I had her come to the hospital nearly two weeks prior to the operation for the special preparation so essential to the success of a laparotomy. The preliminary treatment consisted of general baths, disinfection of the vagina and flushing of the bowels and kidneys.

Here I will state that you are to be sure the bowel is flushed. I thought I had accomplished this, but later developments proved I had not. Of this I will speak later. A catarrhal condition of the respiratory tract and a very irregular heart action demanded close attention. In order to shorten the time of narcosis the final preparations were made prior to the administration of the anæsthetic.

When profound anæsthesia was induced I made an incision from a point about an inch below the umbilicus to near the pubis in the linea alba. The skin, subcutaneous, cellular and adipose tissue, the limited aponeurosis of all the broad abdominal muscles, the transversalis fascia with its cellular fatty pre-peritoneal tissues and peritoneum were incised, extreme care being taken to check all hemorrhage before entering the abdominal cavity.

After the peritoneum was opened the womb mass of the tumor appeared as a bluish, translucent body nearly surrounded by adherent portions of the intestine and omentum. The bladder, as before stated, was also adherent, and on the whole the outlook was not flattering when I considered the fact that my patient was a poor subject for anæsthesia. With characteristic skill

my friend, Dr. Russell, delved into the abdominal cavity and grasped the tumor while I held the intestines enveloped in hot wet towels that had been dipped in a saline solution. The adhesions were so firm, however, that the doctor was unable to raise the mass from its resting place and the combined efforts of both of us were required to accomplish this.

When brought to view the adhesions were quickly separated, the bladder was detached, the large vessels treated by ligatures and minute bleeding points by compression. When dissection was complete the upper portion of vagina remained and when brought together left a stump in the locality of the os. In brief, the technique of the operation was as follows: Ovarian vessels ligated and severed; ligaments ligated and severed; vesico uterine peritoneum freed and pushed down with the bladder; left uterine arteries tied in the cervical portion; uterus and tumors amputated across the cervical portion; right uterine vessels clamped above the stump; uterus and tumor was pulled out and the ligament and ovarian vessels clamped and the tumor removed; ligatures were applied instead of clamps; cervical stump closed; the anterior layer of both broad ligaments and vesical peritoneum were drawn over the stump and sutured there.

After the toilet of the abdomen was complete the incision in the abdomen was completely closed and a heavy iodoform gauze and cotton dressing was applied and kept in position with adhesive strips, several in number; over this a many-tailed bandage was placed, reaching from the ensiform cartilage to the pubis. The patient was placed in bed considerably shocked.

While on the table strychnine hypodermatically was resorted to, and this was continued regularly every three to six hours. A pint of warm saline solution was thrown into the bowel and allowed to remain. This had an excellent effect in a general way and lessened the intense thirst that was present. Hot water bottles were applied to the extremities, the head was kept low and the legs were elevated. Nausea and vomiting were persistent, but ceased when no water was given. Here is a strong point: Don't give your laparotomy patients water to drink. Give plenty of salt water per rectum. The bowels were moved within forty-eight hours after the operation with the use of magnesium sulphate and the long rectal tube. Turpentine, glycerine and hot water was the mixture employed. The patient suffered from secondary shock, but soon recovered from this under the use of strychnine and hot whisky baths. The patient's temperature re-

mained normal until the evening of the third day, when it rose to 102 degrees. I could not determine the cause of the elevated temperature, but recalled the fact that I had unusual difficulty in inserting the rectal tube the day before. Could it be possible, thought I, that notwithstanding the active purgation before and since the operation that an impacted fecal mass is responsible for this rise of temperature? A generous dose of magnesia sulphate and another high injection proved this to be the case, as hardened fecal matter was passed and the temperature dropped to normal, where it afterward remained.

Aside from a single suture abscess, due to some infection no doubt, and a slight suppuration of the stump, there was no complications and my patient made a good recovery.

PYOSALPINX.

HENRY S. TUCKER, M. D., CHICAGO, ILLINOIS.

It is over fifty years since salpingitis was accurately described and scientifically classified. The classification which is given now is sactosalpinx. It is applied to closed tubes, and according to their contents, if they are watery, bloody or purulent, the disease is designated as sactosalpinx, serosa, hemorrhagica and purulenta. To this classification may be added the tubo-ovarian abscess.

Etiology.—Suppurative affections of the fallopian tubes are due to any pus-producing micro-organisms, which usually find their entrance into the vagina, through the uterus and then into the pelvis, either by the way of the cervical canal, through the lymphatics or by the way of the blood. The route of extension from the uterus depends largely upon the variety of the organism. The gonococcus almost always travels along the mucous membrane into the tube, where further extension is usually arrested by the ciliated columnar epithelial cells which line the tube. It may extend to the ovary or escape into the pelvic peritoneum, setting up a local peritonitis.

It has been conservatively estimated that fully 65 per cent of all cases of pyosalpinx are due to the gonococcus. However, in not more than 20 per cent of these cases in which the gonococcus can reasonably be suspected to be the cause, or the germ be demonstrated either by cultures or by staining methods.

The streptococcus and staphylococcus are usually given a

very large place as the micro-organisms causing pyosalpinx. This can be questioned, because Menge found the streptococcus only four times and the staphylococcus six times in a series of nearly 200 cases. Baccus and Herzog in a routine examination of over 500 cases of pyosalpinx failed to find any organism in 70 per cent of the cases, the gonococcus in about 20 per cent, the streptococcus in about 2 per cent, the staphylococcus in 3 per cent. The colon bacilli, the micro lanceolatus, bacilli lactis aerogenes, pneumococcus and the typhoid bacillus were found in the rest. Diphtheria bacillus, bacillus ærogenes capsulatus, bacillus pyocyaneus and numerous other bacteria have been described. Mixed infection of two or three different micro-organisms are rarely found. An organism may develop a pyosalpinx and die and pave the way for a secondary invasion of other bacteria.

The reason why so many cases of salpingitis appear to be free from bacteria can be readily explained. The bacteria get into the tube, set up a violent inflammatory process and literally shut themselves in. The fimbriated end and the isthmus become closed. The tube seldom ruptures and the toxines that the bacteria manufacture are finally fatal to themselves. In all most acute cases of pyosalpinx the bacteria can easily be demonstrated. Measles or scarlatina may be the cause in some cases, being due to general infection.

Pathology.—The course of the disease is about the same as most inflammatory processes. The first effect of the entrance of the invading organism into the uterine tube is to set up a reaction termed inflammation, which as a rule tends to close the fimbriated end. In mild cases the inflammatory condition may pass off without the production of a pyosalpinx. When the infection is more severe pus forms in the tube and may discharge into the uterus, or the fimbriated end may rupture and permit the escape of the pus into the pelvis over the ovary, producing periovaritis and pelvic peritonitis. If it is a gonorrheal infection, or if the more virulent pus-producing organisms are present, pyosalpinx is the invariable rule. The inflammatory condition may be arrested in the tube, but if the infection is progressive it will usually involve the cellular tissue.

The initial stages of salpingitis are associated with a more or less violent local reaction, in which the tubes become thickened and edematous and fall down in the pelvis toward the pelvic floor. The mucosa becomes congested and swollen and is bathed in a mucoid, semi-purulent or purulent secretion. The reactionary

inflammation from continuity of tissue causes the tubes to become adherent by light adhesions to the adjacent organs. As the inflammatory process progresses the adhesions become more dense and finally the tube becomes closely attached to the posterior surface of the broad ligament, to the uterus, the pelvic wall and floor and covers in the ovary with its mesosalpinx. The rectum is especially liable to be involved in the adhesions when the inflammation is in the left tube. The pus varies in appearance from a thin puriform fluid to a thick yellow pus. It may be greenish and streaked with blood. Sometimes it is fetid with a strong odor of garlic. This is apt to be the case when the abscess lies in close proximity to the rectum. As a rule both sides are affected, but the abscess on one side is usually larger than on the other. Occasionally, however, one side presents an advanced pyosalpinx and the other tube is sound. The liability of both sides to share in the disease shows a definite tendency in the progress of the process from without inward.

When the tube presents a nodular appearance from separate accumulations in the isthmus the affection is termed a salpingitis isthmica nodosa. This form is most frequently found in gonorrheal infection. In catarrhal salpingitis it is generally unilateral and the tube is enlarged to about the size of a thumb and there is a slight increase in its tortuosity. The entire wall is thickened, hardened and purplish in color. Sometimes the induration is general and sometimes it is marked in places, giving a nodular appearance to the tube.

Symptoms.—The symptoms produced by the presence of pus in the tubes are practically those of pelvic abscess or ovarian abscess. They vary widely according to the stage of the disease and the variety of the invading micro-organisms. During the acute stage, lasting a week or longer, the patient suffers intense pain. She lies in bed with the knees drawn up and an anxious expression on her face. The temperature is elevated, the pulse quickened, and there is local tenderness in the region of the pelvis. There is usually tympanitis, and the symptoms suggest peritonitis in the gonorrheal cases. The pelvic inflammation may be preceded by an acute inflammation of the urethra, vulva and vagina, which may then be quickly followed by pelvic pains, high fever and pelvic symptoms. On the other hand, the symptoms may be deferred for several days or months or may never be noticed by the patient. In these cases the causal relation is not so evi-

dent. The onset may be gradual, beginning with an acute pain in the ovarian region, a slight rise in temperature, painful micturition and defecation. After pus is formed the patient may have rigors, but this is not so frequent as in the graver types of infection. When the pulse is good there is little or no vomiting. The expression is that of a person suffering pain, but the general conditions are excellent.

In a streptococcus infection the attack often dates back from a confinement, abortion or local treatment of the uterus, or some operative procedure in the vagina. The onset is rapid and attended by a chill, high fever and a rapid pulse. The effect of the septic absorption is soon shown in the general expression, the pulse becomes more rapid, the abdomen distended and tenderness is well marked. In streptococcus cases the patient is usually bed-ridden from the beginning of the attack, while the patient with the gonorrheal infection may only be bed-ridden for a week or ten days or not at all. After an acute attack has passed in both gonorrheal and streptococcus infections the patient may get out of bed and continue to suffer, but in the streptococcus cases she usually has a septic temperature and a peculiar anemic look of a grave infection. The attacks of pain of local peritonitis tend to recur at frequent intervals and are attended each time with the same symptoms, which continue until a very large abscess is formed behind the uterus on one or both sides, completely filling the posterior pelvis. Obstinate constipation is very often found in these cases. It may be the result of pain on straining at stool or due to stricture of the rectum produced by the inflammatory bands bridging its lumen. Frequent urination is often a distressing symptom. Sometimes there is actual cystitis from the same infection of the bladder as that existing in the tube. After the acute symptoms have subsided the patient is weak, wan and sallow looking, as though she had survived a severe illness. She is relaxed; she cannot walk without distress. The temperature drops a little, but often does not fall to normal for some days or weeks, rising to 99° or 100° F. in the evening. There is usually a persistent fixed pain in the lower abdomen. Sometimes the symptoms gradually abate and the patient finally regains complete health. In cases where complete health has been restored this is probably due to a discharge of the pus into the uterus. This is undoubtedly very rare.

Very few cases of normal tubes are found on the post-mor-

tem table where there has been any reason to suspect that the patient suffered from salpingitis. Invariably an infection of the tubes causes pelvic changes and these changes result in various manifestations, of which the patient complains to her physician. If the pelvic suppuration precede, the symptoms, although less severe than in an acute process, are always present. The patient complains of a bearing-down pain, backache, painful defecation and micturition, often a purulent vaginal discharge. She is usually compelled to take something to move her bowels.

A sudden elevation of temperature during an attack is always a serious symptom, denoting an extension of the inflammatory process and a grave septicemia or general peritonitis. In chronic cases patients have been known to suffer twenty years or more from such recurring attacks.

If the pyosalpinx is not interfered with one of four terminations usually result: It may discharge intermittently through the uterus; it may rupture and evacuate itself by the rectum, vagina, bladder or abdominal wall, or it may discharge into the peritoneal cavity. The pus may remain encysted for an indefinite period, in small accumulations may become inspissated. Calcareous infiltration in these cases is quite common. It may entirely disappear, leaving behind a hydrops when ovaries and tubes are bound down by adhesions.

Diagnosis.—This is often easy to make, but at other times it is absolutely impossible. You may cut down, expecting to find a typical case of pyosalpinx and find a cystic ovary or an appendiceal abscess or a suppurating fibroid. One of the chief points in establishing a diagnosis is the history of the attack of gonorrhea, a septic labor or miscarriage, since which time the patient has never enjoyed good health. Many patients will recall a confinement to bed for one to two weeks with peritonitis. Careful questioning of the husband in these cases will often elicit the information that he was suffering from some gleety discharge at the time. It is the opinion of many that any woman who marries a man who had gonorrhea is liable to have pyosalpinx. In other cases there is no definite history of an acute attack. The onset is gradual, the pains grow worse and worse at each menstrual attack until a state of invalidism is finally reached. Following the initial symptoms the most characteristic features of the history of the disease are attacks of peritonitis, confining the patient to bed for a few days, weeks or months, and referred

to as inflammation of the stomach. The general appearance of a patient suffering from salpingitis varies from a look of complete health to marked emaciation. The attitude and gait as she enters the room are often significant. There is a slight bending of the body over the pelvis and a cautious gait, a habit of placing her hands over the lower abdomen, keeping an even pressure on the pelvic viscera to avoid jarring them.

The most important point in diagnosis is to differentiate between a gonorrheal and streptococcus infection. This can usually be done. In a gonorrhea the onset is slow and preceded by an inflammation of the external genitalia. The pain is localized. There is little or no fever. She suffers more or less constantly. The attack lasts from one to two weeks. She looks well. The gonococcus is usually found in cover glass preparations from the cervix or the urethra or in the vulvo-vaginal glands. There is a history of gonorrheal infection.

In streptococcus infection the onset is rapid, following a miscarriage or a labor or some uterine treatment. The pain is general and severe in the lower abdomen. There are usually signs of peritonitis. The patient suffers constantly and has a septic fever. The pulse is feeble and rapid. The attack lasts seldom less than a month and may continue months or years. The gonococcus is not found in the secretion. A vaginal examination will show that the uterus has lost its mobility. The hardness of the vaginal wall is one of the most characteristic signs of the presence of pus. A bi-manual examination shows that the pelvic peritoneal floor has become tense and resistant and the posterior pelvis is choked with an irregular mass. The mass can be recognized on either side of the uterus and posterior to it and occasionally straddling it behind like saddle bags. If the tumor contains pus a fluctuation can be felt. By rectal examination a densely adherent pyosalpinx can be felt. A leucocytosis is usually present in all cases. This is very important in differentiating it from a cyst.

Prognosis.—The termination of this affection depends upon the species and virulence of the infecting micro-organisms. The natural resistance that we hear so much about has very little to do with it. The gonococcus is no respector of persons. A gonorrheal infection usually expends its force upon the tubes and beyond a peri-ovaritis and pelvic peritonitis no more extensive damage occurs. The inflammatory condition may be chronic,

lasting for years, and is characterized by exacerbations. In the streptococcus and staphylococcus infections the course of the disease is more rapid, tending to produce a general peritonitis sometimes a septicemia. In about one-half of the chronic cases the organism dies and the pus becomes sterile. The prognosis is always serious, and the patient with pyosalpinx is never out of danger. As Kelley says, she lives literally over a mine which may explode at any time. The mortality of these acute cases without operative interference has been estimated at about 6 per cent.

Treatment of Acute Cases.—Active surgical interference should be the rule in 90 per cent of the cases, but this cannot always be done.

Expectant Treatment.—The patient is put to bed. Rest with some mild cathartic, antipyretics, etc.

Hot-Air Treatment.—Kehrer says, in view of the fact that about 70 per cent of all pelvic exudates tend to become absorbed, he suggests that if this treatment was used more, there would be less need for surgical interference. He uses hot vaginal douches several times a day, allowing at least three gallons of water to flow through a recurrent glass tube. Also hot sitz baths and compresses applied to the lower abdomen. The hot-air apparatus of Betz is cheap and answers the purpose nicely. He reported a number of cases of chronic catarrhal salpingitis that had been cured after twenty treatments. The classical treatment at one time was in every case of pyosalpinx to cut down and remove the tubes and ovaries. This was a simple operation for the operator and the result beautiful, but there has been a great reaction. Few men today but what will think twice before they remove an inflamed tube and ovary, especially where both are involved. There are many reasons for this.

A new conservative operation on the adnexa has recently been described by Kirsac. He proposes a conservative operation on the tubes and ovaries which may lead to entire recovery. The operation not only frees the diseased organs from the unhealthy parts, but preserves the tubes and ovaries in their entirety. The ovary is freed from adhesions and brought out of the wound. It is then divided from end to end as in treating the kidney. The two cut surfaces are then carefully examined, all cysts and diseased portions removed. The operation is called scapsy, from the Greek scapto, to hollow out. If the ovary alone is operated on it is called oophoroscapsy. If it is the tube in question it is sal-

pingoophoroscapsy or parætimatoscapsy. After having removed the diseased parts with a curved bistoury or a pair of scissors the two parts are brought together; that is to say, the organ is reconstructed. If there has been much tissue removed two sets of sutures are necessary to hold the parts together, a deep retention layer and a superficial layer.

In case of enormous destruction of the organ, as in abscess or cystic formation, the best process is to remove the whole organ, as there remains nothing to be preserved.

Salpingectomy.—Govilliova recognizes only two indications for this operation:

First—Cases in which the tubes are thickened and the abdominal end is closed and adherent. The patient suffers so much pain that she is incapacitated from going about and attending to her work.

Second—Chronic catarrhal salpingitis.

He does not believe in the conservative treatment of pyosalpinx except in those cases where it is known that the pus is absolutely sterile. The question as to whether these women with a pyosalpinx will ever become pregnant again is a very interesting one. In over 1,000 cases collected by Dr. Baccus he found in women who were treated by medicine or by conservative surgery 4 per cent became pregnant. This in itself speaks very highly for this method of procedure.

The natural result in these cases in sterility, or if the spermatozoa should find its way into a tube that has been inflamed and find the ovum and impregnate it the result will be tubal gestation. We find this is quite liable to occur in these cases. Further treatment of cases than what has been suggested is to keep the bowels open by giving some saline cathartic, followed by an enema, afterwards cascara evacuant should be given sufficiently frequent to have at least one evacuation a day. Do not lock up the secretions by giving opiates, but if necessary control pain by giving one-half grain codeine hypodermically as needed, or salol, two grains in a capsule every three hours. Do not forget the use of atropine in those cases where peritonitis is developing, 1-100 grain hypodermically every four or three hours if needed has been given with the very best results. Electricity can be used to good advantage in some cases, using the negative pole in the vagina and the positive over the abdomen from five to ten minutes once or twice a day.

No rule can be laid down for any certain method of operative procedure, but it is generally conceded that operation is seldom called for during an acute attack. It will not be necessary to go into the technique of the operation. Where many adhesions have been formed it will be necessary to be very careful not to rupture the tube or abscess into the peritoneal cavity. If the indications are that such an accident may occur, care should be taken to wall off the peritoneal cavity with sponges before attempting removal. All hemorrhage should be controlled, and if by accident an abscess should be ruptured it should be carefully sponged out and gauze drainage introduced and allowed to remain for forty-eight hours.

THE ETIOLOGY OF PELVIC DISEASES.

JOHN DILL ROBERTSON, M. D., CHICAGO, ILLINOIS.

Since the days of Austruc of Paris, 1761, the question of the cause of disease in women has been the subject of much dissertation and investigation. The host of investigators are numerous. Among them stand out the names of several American gynecologists—namely, Sims, McDowell, Simpson, Emmett, Kelly, Williams and Henrotin.

There is a prevailing impression that diseases of the female genital tract are due solely to pathogenic bacteria. Most of us are apt to forget that there are a great many other etiological factors in the production of diseases of women. First, civilization; the assumption is made that civilization in the aggregate exercises a deteriorating influence upon woman, and that it develops her mind, brain and nervous system at the expense of her physical organism. Bryon Robinson says "that women have two brains," one in the skull cap and one in their pelvis. He does not tell us which one is used most. Second, education; education of the conventional type has been held responsible for many of the ills peculiar to women. The doctrines of Froebel and Pestalozzi have relieved educational methods of much of their subjectivity and the result will be that more attention will be given to the education of the musuclar system and the special senses. The modern woman's dress and dietetic habits are not in the least conducive to health.

Conditions of Modern Life.—There are many conditions of the modern woman which tend to make her more liable to pelvic

diseases than were the women of ancient Greece and Rome. The fact that in our cities so many young girls are gaining their own livelihood is of vast importance for the future health of a considerable number of our women. The girls frequently are doing work altogether too heavy for their immature strength. They are in bad postures for many hours at a time. Their occupations do not cease during the menstrual period. All this is sufficient cause for many pelvic diseases. Habitual constipation, exposure, deficient clothing, unhealthy home surroundings, bathing, the use of the douche, habitual copulation, abortions, the so-called preventive treatment for the avoidance of conception is no small factor, improper treatment during the lying-in period, too early getting up from the child-bed and lack of repair after laceration —all these are inducing causes. Another cause is the tendency of modern women to think about their genitive apparatus. We must discourage the constant tendency of suggestions to young girls and women about their menstrual functions. The social evil is too well known to be discussed in this paper. Uterine insufficiency. Thielharbor has recently called attention to the fact that the uterine contractions take place not only during pregnancy, but also during the entire life of a woman. If this were not so the uterus, according to physiologic laws, would atrophy. The influence of the uterine muscles is proved by observing the effects of ergot and other uterine stimulants upon cases of menorrhagia.

Muscular Relaxation.—In its relation to the diseases of women this is a very important factor. The relaxation of the abdominal wall and pelvic supports, together with the displacements of the abdominal and pelvic contents and dilation of the stomach and large intestines, have no doubt done their duty many times in the production of organic pelvic disease. This question receives scant attention in text-books. The relax vaginal outlet seems to be regarded by most gynecologists as always the result of perineal laceration. This is not always true. Muscular relaxation is sometimes the sole cause of a relaxed vaginal outlet. whether the results of subinvolutions following child-birth or miscarriage or whether from general relaxation in the nulliparæ.

Dyspepsia with Pelvic Disorders.—It is a well known fact that the majority of women suffering from pelvic diseases have more or less stomach trouble. Undoubtedly many of the cases of dyspepsia and allied conditions are the result of pelvic disease,

and it is quite probable that some pelvic disorders are the result of stomach trouble.

Finally, the relation of nervous disorders to pelvic disease. It is a well known fact that most women with pelvic disorders suffer from various nervous manifestations, and yet the possibilities are that in many cases the nervous lesion was the primary factor in the production of pelvic diseases. The question of hyperplasia and malformation will not be taken up here.

Before taking up the direct causes of pelvic diseases I wish for a few minutes to discuss the bacteriology and the physiology of the normal vagina. Following the introduction of antiseptic methods into gynecology the use of an antiseptic vaginal douche became a part of the routine treatment of all gynecological ailments. This method was popularized in America by Emmett. Countless pathogenic bacteria were supposed to exist in the vagina. This is not true. The bacteriology of the vulva and vagina in both health and disease has been very carefully investigated by numerous observers. The pioneer work was done by Haussman, Keher and Karewski. Winter, as late as 1888, found numerous organisms in the vagina and in the pundel structures, in either of which were there any manifestations of disease. An interesting fact is that he found staphylococci and numerous streptococci all of which in morphology and cultural characteristics were identical with similar bacteria found in other loci where they possessed pathogenic bacteria, but inoculative experiments have proved that these organisms were not in the least pathogenic. The question of whether the cervical or vaginal secretions have any effect upon keeping the vagina sterile and rendering pathogenic bacteria innocuous has been worked out most carefully by Doderleim, who has found that a bacillus that does not grow upon the usual culture media has its normal habitat in the vagina, and it produces an acid, apparently lactic acid, upon which the usual acidity of the vaginal secretion depends.

More recently Michim of Russia has found a chemical body which he showed to be trimethylamin, in the secretions of the female genital organs. He made 154 quantitative observations upon patients with diseases of the uterus and adnexa, pregnant women during labor and in the puerperium, in the climacteric, after operations and in the completely normal condition. He found all the way from 0.07 to 0.72 per cent in the normal woman. He undertook to investigate the influence of trimethylamin upon

an extensive series of micro-organisms. As a result of his observations he concludes that most micro-organisms showed no growth in culture media, where trimethylamin was present even in dilution of 1-15000. I think it can be conclusively stated upon the abundance of clinical and experimental data that the normal vagina is free from pathogenic bacteria, and even in diseased condition the vagina is quite capable of taking care of itself against most invading bacteria, with the exception of the mighty gonococcus. Upon the above statement it is shown that the ordinary prophylactic vaginal douche is not only unnecessary, but absolutely harmful.

Looking over a dozen of the latest and most popular textbooks on gynecology, it will be seen that the vaginal douche does not occupy the prominent place which it once held. Many of the modern gynecologists have entirely discarded the use of the douche in the treatment of pelvic diseases. Henrotin, some years ago in the County Hospital of Chicago, where he had charge of the gynecology ward, treated all patients on one side of the house with douches, and on the other side of the house no douches were given. His experiment went over two years, and over a thousand patients were treated with and without the douche, and strange to behold the patients who did not get the douche as part of their routine treatment got well sooner than those who were given a daily vaginal douche. The same observation was made by Alhausen and Saunder. I believe that it is an opinion of the best gynecologists that leucorrhea cannot be cured by any amount of vaginal douches. There are not less than twenty-seven authentic cases in medical literature of death following the use of the vaginal douche. The usual uses of the vaginal douche are two—first for depletion, and second as a cleansing agent. For depletion the tampon with any of the hydroscopic reagents act as well, if not better, than the douche, and as said before, the vagina is a self-cleansing organ, and where cleansing is necessary a swab acts very well. In those cases where it is necessary to treat the uterus, as in gonorrheal affections of the uterus and other structures in the pelvis, local applications have many advantages over the douche, and in those few cases where it will be thought necessary to use the douche, a specially constructed recurrent intra-uterine douche should be used.

The exciting cause of pelvic diseases, as is well known, is due to pathogenic bacteria, as a rule. First, tuberculosis; Merletti has

summed up the results of a very extended and laborious investigation of tuberculosis of the female generative organ, and his conclusions are as follows: Tuberculosis of the female genitals is more common than generally supposed and is met with in 12.6 per cent of tubercular women. This depends upon the immediate relation of the female genital organs with the peritoneum and intestines. Though in the most parts secondary, 81 per cent; in a considerable number of cases 19 per cent are primary. Tuberculosis of the uterus is not so severe as supposed and was met with in 75 out of 172 cases. In most cases infection of the uterus is secondary to that of the tubes. The tubes are the most favorable seat for the disease and was affected in 157 out of 172 cases of genital tuberculosis. The ovary exhibits a certain resistance to tubercular infection. It was found only 25 times in 172 cases. Cases were found in the broad ligament and in all parts of the genital tract.

Syphilis.—Syphilitic manifestations may be either primary, secondary or tertiary, and is usually in the external genitalia. Syphilis of the uterus is quite rare, but Ricord found chancre of the cervix in six per cent of women presenting themselves at his clinic. Hertzog is of the opinion that certain cases of chronic oophoritis in which no other causation can be obtained may be due either to the acquired or genital forms. Syphilitic gummata are occasionally found in all the parts of the genital tract and vaginal and uterine chancre and are often found and are the result of systemic infection rather than any pelvic disease.

Parasites.—Parasites are occasionally found to be etiological factors in pelvic disease, but these are usually the results of accident. The echinococcus and the trichophyton are the ones most commonly found.

The three most common causes of all diseases of women are: First, the gonorrheal infection which easily leads; second, infections following abortions, and, third, the result of some manipulation, either by the hands of the patient or the operator upon the female genital organs.

Gonorrhea.—Most cases of vaginitis are due to the gonococcus. At one time it was thought that the gonococcus was restricted to the vulva, vagina and urethra. But since the days of Tait and Noeggerath it is known that the gonococcus does not stop its destructive influences in the vagina, but travels up into the uterus, where it finds a fertile soil, and is one of the most frequent

causes of endocervicitis and endometritis. It travels up through the fallopian tube and causes at least 85 per cent of the cases of pyosalpinx. The gonococcus may and very often travels through the uterus and into the fallopian tube without infecting the uterus. Most ovarian abscesses are due to the gonococcus. The gonococcus has a special affinity for the fallopian tube and very often it will be the only organ affected. A notable fact is the comparative rarity of urethritis in the female. In the male this is the most common seat in the gonococcus infection. It may be mentioned here that it is extremely difficult to rid the vagina of the gonococcus. Lasar examined a large number of prostitutes who were up and about and found gonococcus 100 times in the vagina and seven times in the cervical canal.

The differentiation in the gonococcus is no easy matter and it has been the source of a great deal of confusion to the gynecologist and bacteriologist. The latest treatment for gonorrheal vaginitis, urethritis and metritis is washing the surface with two per cent carbolized water and direct application of the various silver salts in different strengths. The douche is not to be recommended.

In cases of infection of the female genital tract following abortion the streptococcus is the most common. It has little or no affect upon the vagina, but is responsible for many of the diseases of the uterus, the tubes and ovary. Most of the fatal cases of pelvic peritonitis are due to the streptococcus. Few cases of fatal peritonitis are due to the gonococcus. The pelvic abscess, which is so commonly found following abortion, is most always due to the streptococcus. In cases of pelvic suppuration, outside of the gonococcus, it is usually a mixed infection with the staphylococcus and the streptococcus.

The staphylococcus is usually introduced into the uterus by the way of the douche or the sound or some manipulation on the genital tract. If it does not get beyond the vagina it does little or no harm, but in the uterus it sets up a mild inflammation and is quite apt to travel to the tubes and ovaries. The staphylococcus is the cause of no small amount of pyosalpinx. Many of the infections of the broad ligament are due to the staphylococcus.

Bacillus Coli Communis.—This is quite a frequent cause of pelvic disease. It can be readily understood, the rectum is so near the vagina, and undoubtedly, if it were not for the protecting influences of the vaginal secretion, infection with this organ-

ism would be much more common. Some of these organisms manage to get by the vagina and get up into the uterus, tubes and ovary and set up a violent inflammation in the organs in which they find lodgment. Undoubtedly a small number of cases of infection with this organism comes directly by way of the lymphatics from the intestines.

Many other kinds of pathogenic bacteria occasionally play the roll as the exciting factors in the causation of pelvic disease. The diphtheria bacillus, in some cases a characteristic membrane has been described on the vagina. The pneumococcus, the bacillus ærogenes capsulatis, the influenza bacillus, the anthrax bacillus, the bacillus dysentericus, the typhoid bacillus (by no means rare), the bacillus of chancroid and most all other pathogenic bacteria are occasionally found.

RETRO-DISPLACEMENTS OF THE UTERUS.

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To my mind these are the most frequent wrongs the physician will encounter, and the ones that will tax his ingenuity to cure. This class of wrongs is caused, as are other displacements, by increase in the weight of the organ, by pressure from above or by loss of support from below. They are more apt to follow a difficult parturition, but may be contracted during girlhood by neglect in evacuating the bladder as well as by tight lacing.

The symptoms usually complained of by patients suffering from posterior displacements are many and are frequently far from the primary wrong. The symptoms caused by retro-version do not differ materially from those accompanying retro-flexion. The patient will complain of pain in the sacral region extending up the spine to the back of the neck and head. There is apt to be various neurosis, especially after the wrong has existed for years. Constipation is almost invariably present, sometimes accompanied with painful micturition. Often hemorrhoids exist, being caused by the pressure.

The patient suffers with dysmenorrhea especially preceding the flow. The menstruation is apt to be scanty. Besides the above symptoms there may follow loss of appetite, the anæmia and exhaustion which would naturally result from the wrongs enumerated.

We can diagnose these wrongs only by examining the patient bi-manually. During this examination we should not only determine the nature of the displacement but also the degree, and ascertain if adhesions exist, and if there be diseased adnexa. Some gynecologists claim that distressing symptoms will not accompany displacements unless there be diseased adnexa or adhesions. The truth of this statement I am not ready to prove or disprove as my observation has been too limited. Suffice it to say that in all cases I have encountered, such complications were present.

As to the treatment of these wrongs. You will agree with me that practically all cases will need mechanical measures. I believe that all cases of long standing will need surgical measures before a cure is accomplished. Intelligent treatment will be along the lines of a removal of the cause. If the case be of recent origin, it being due to sub-involution following parturition, treatment instituted to reduce the size of the uterus will accomplish results. If the perineum has been lacerated we must repair this before we may expect any improvement in the case.

As a palliative treatment when the patient positively refuses to be operated on I advise her to assume the knee-chest position daily at bedtime for twenty minutes, and as an adjunct use cotton-wool tampons. If dysmenorrhea exist use cervical dilatation just previous to each menstruation. If leucorrhea is present use a mixture locally composed of pinus can., hydrastis and dist. hamamelis applied by means of a tampon. If endometritis or endocervicitis accompany the wrong, treat it according to indications. Under all circumstances give internal remedies as may be indicated. I use caulophyllum, macrotys, helonias, viburnum, ustilago, phytolacca, berberis aq. and others. The above treatment must be conducted persistently and at the beginning give the patient a guarded prognosis, impressing upon her mind the fact that much will depend on herself, that the improvement will be slow, and insisting that she do not exert herself or be on her feet very much. Unless she be situated so she can take care of herself the treatment will be of no avail. This is the reason why I favor radical measures and institute such as will fasten the uterus up where it will remain notwithstanding what the patient may do in the meantime.

There are numerous operative procedures for the correction of displacements but the one I employ with success is a hyster-

orrhaphy or ventro-suspension. It differs from ventro-fixation in that when doing the former you stitch the uterus to the parietal peritoneum of the anterior abdominal wall instead of fastening it firmly to the abdominal wall itself. The advantages of the former or ventro-suspension are: First, the uterus is mobile, two anterior ligaments being formed in time, so that the uterus may expand in case of pregnancy, so that no complication may ensue during that period nor any arise during parturition. Second, the uterus after suspension will be more nearly anatomically correct, obviating the danger of pressing the bladder and avoiding any constriction of the bowels, should they become wedged between the uterus and abdominal wall.

The advantages of suspension over Alexander's operation is that the abdomen must of necessity be opened, when you may break up adhesions and remove diseased adnexa, one or the other of which you will most always find. I will briefly report two cases of retro-version, in one of which ventro-suspension was employed while in the other palliative measures were instituted.

Miss N., age 32 years, came to me in October, 1903, stating that she had been a sufferer for fifteen years. The symptoms were gradually getting worse until they were almost unbearable. Various neuroses were present. She had attacks of hysteria, pain in the left inguinal region extending to the sacrum, dysmenorrhea, headache, neuralgia, obstinate constipation and vesical tenesmus. On examination I found the third degree of retro-version as well as a tender left ovary. I advised an operation but the patient was a little reluctant to submit so I inserted a soft rubber ring pessary and put her on the indicated internal treatment. There was some improvement while the pessary remained in place but the patient soon dropped back into the old rut.

She finally gave her consent to the operation, so after thorough preparation and anæsthetization I made an incision about three inches long in the hypogastric region extending from the pubic bone upward. Upon opening the abdominal cavity and examining the ovaries I found the right one normal while the left one was bound down by adhesions and was cystic, so I removed it, and bringing the uterus up into the incision in the abdominal wall I took my needle, armed with number one silk, and passed it through the edge of the peritoneum on the left side of the wound, according to the patient, then through the uterine fundus upon its posterior superior aspect, then through the opposite edge

of the peritoneum. I likewise passed another suture about a quarter of an inch from the first one, then tied them and cut them off short. After stitching the balance of the peritoneal opening I closed the abdominal wound with two more tiers of sutures of cromatized gut.

The patient convalesced rapidly and for two months seemed apparently cured, constipation, headache, dysmenorrhea and neurosis being relieved. She has had two or three attacks of hysteria and neuralgia since due to neurasthenia. I have been administering nerve tonics, but am limited in the use of these from the fact that she had an idiosyncrasy for most of the leading ones such as nux and its alkaloids. I have been giving the phosphates with some degree of success. As soon as the nervous system is toned up to its normal state the patient will be entirely cured.

Case 2. Mrs. D., age 22, was referred to me by Dr. Clinton of Bellevue, Ill. She has been a sufferer for six years from retro-flexion as well as a lateral version of the uterus. Her most intense pain precedes the menstrual period. The fact of her not bearing children also worries her. Examination confirms the doctor's diagnosis. There is also a stenosis of the cervical canal due partly to the displacement and partly to an evident congenital smallness of the canal.

Ventro-suspension and dilatation of the cervix was advised, but the patient would not submit to an abdominal section, but agreed to the milder measures being done. So we dilated, curetted the cervical canal so as to benefit the endo-cervicitis that existed and after replacing the uterus in the best position possible consistent with the adhesions that existed we packed the vagina to retain it. Daily treatments were used for a week and during that interval the cervix was again dilated. The proper internal medication was also instituted. She was sent home with instructions to Dr. Clinton that he dilate the cervix just preceding each menstrual period, also to instruct the patient to assume the genu-pectoral position daily for a few minutes at a time, preferably at bedtime. Four months later the patient reported marked improvement in the dysmenorrhea but upon examination little if any change in the displacement was noted. Having promised but little benefit unless an abdominal section was performed, the patient was satisfied with the results so far attained.

UTERINE VENTROFIXATION.

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In treating upon the operation known as ventrofixation, an understanding of the technique is only a small proportion of what should be known, in order to make a wise selection of conditions that can be treated most successfully by means of this operation.

From a philosophical standpoint we can readily see that the operation is applicable only in cases of uterine displacements. First, a downward; second, a posterior; third, a lateral. The anterior displacements are of rare occurrence and no doubt they can be remedied by this operation. In order to attain a high standard of success, much depends upon the judgment which we exercise in selecting the proper cases for the proper operation.

In consideration of the various methods of treatment for uterine prolapsus, medical, mechanical and surgical, we do not wonder at the small degree of success that is attained in this trouble, which causes more suffering among women than any other ailment that we can mention. In selecting our cases for the operation of ventrofixation we should take into consideration the etiology and history of the case. It would be unwise to subject a patient to a ventrofixation where there is an acute form of prolapsus in which the patient would in a very short time by medical and mechanical treatment have gained relief. It would also be unwise to subject the same patient to the various operations that are at times performed to retain the uterus in its normal position, such as the Alexander operation of shortening the round ligaments, removal of hypertrophic portions, amputations of the cervix, and operations upon the vagina to lessen its caliber and furnish support in that manner. We all understand that prolapsus of the uterus means a descent of the organ. It is possible to distinguish any number of degrees of prolapse. But it is sufficient to speak of two only. Incomplete prolapse, in which the os uteri is still within the vagina, and complete prolapse, in which it projects through the vulva, or the form which is known among older writers as procidentia.

In reference to the etiology we can mention the following: Injuries to the perineal floor and unusual laxity of the vaginal walls, relaxation and elongation of the uterine ligaments, trau-

matism and excessive pressure upon the uterus from the abdomen may cause descent of the organ. Uterine enlargements, in which the increased weight of itself causes a descent. Circulatory disturbances causing a congestion and endometritis is also a factor in the cause. In all cases the anterior and posterior walls of the vagina are displaced downward more or less and some times may be completely everted. The anterior wall of the vagina may draw with it the urinary bladder and a cystocele results, or the posterior wall of the vagina may bring with it the rectum and a rectocele is produced. One of the most important factors in the etiology of prolasped uteri may be given, as curettement, that is not resulting from the curettement itself but from the drawing down of the uterus while it is operated upon. Here is where many surgeons exercise very poor judgment by making undue traction upon the uterus, by themselves or their assistants, and in that way causing a permanent elongation and relaxation of the uterine ligaments, and when these conditions are associated with a relaxed perineum, a flabby and large vagina, a chronic permanent prolapsus will usually result. I can testify from my own experience that I have seen a number of unpleasant results following curettement in which the uterus has remained in a prolapsed condition and mechanical or surgical means were necessary to overcome this condition.

Retro-versions and retro-flexions are the most common of uterine displacements. The congenital form is rare however. The first degree of prolapse as a rule leads to a retro-deviation, and any agency which weakens uterine support, and increases uterine weight, tends to produce this condition. The uterus sinks lower in the pelvis, the fundus being carried backward, pressing against the rectum. The round ligaments become relaxed and the uterus enlarged.

The above condition when it exists a long time becomes a habitual retro-diviation and should be treated by surgical means when other methods have failed.

In touching upon the mechanical treatment for prolapse and displacements of the uterus, we no doubt have all had pleasant and speedy results from the use of uterine supporters, and in many cases permanent benefit has resulted from mechanical treatment, however there is occasionally a case that is not benefited by mechanical support; these are usually cases in which there is erosion of the cervix or an inflammatory condition of the parts

that are supported by the pessary, and the patient can not bear its use. I now recall a case which came under my observation. The cervix at that time was very much swollen and tender. A few days after the pessary was removed the swelling and inflammation had subsided. Then we have the long continued use of the artificial support, that is inconvenient and distasteful to the patient. The use of large tampons as a mechanical means to support the womb is not a satisfactory way to treat displacements. So we must delve into the surgical field for a better and more satisfactory method of treatment.

To undertake and advise surgical treatment for the various uterine displacements, one should be familiar with the anatomy of the uterus and its appendages. I have here a chart of the normal uterus in its natural position. This presents a side view of the uterus, and the organs contiguous to it. It will be seen that the fundus is in a slightly antiflexed position, and the fundus almost reaches the anterior belly wall above the symphisis, and that very little pressure in a forward and upward direction would bring the fundus and abdominal wall together. It has been demonstrated that even in cases where the uterus has been fixed to the abdominal wall that the functions of the neighboring organs are not interfered with and that there is not even inconvenience when the bladder is distended. I wish to show this view in order to illustrate the practicability of ventral fixation, compared with the Alexander operation. There are the four principal ligaments of the uterus, two round and two broad. The round ligaments take origin from the corresponding superior angle of the uterus in front and a little below the attachment of the fallopian tubes. They pass forward and outward, enter the internal inguinal ring, pass through the outer ring and are blended with the muscular fibers of the labia majoria and mons veneris. It will be noticed that they do not pass upward, but take a downward rather than an upward course. In the Alexander operation all dependence is placed on shortening the round ligaments expecting by so doing that the fundus of the womb will be held upward and forward. It is true that the fundus will be held forward, but a limited downward displacement can still exist, and furthermore when the round ligaments are once elongated, they will usually stretch more after the operation, and the same symptoms are experienced as before. It is also an error to suppose that the round ligaments are the sole support of the

uterus. It is only a small portion of the weight of the uterus that is borne by the round ligaments, the principal support is given the uterus from the broad and the utero-sacral ligaments. This is another reason why the Alexander operation proves unsuccessful many times. Operations upon the vagina in the way of removing a portion of the anterior wall or even the posterior wall, lessening the caliber of the vagina, and even fixing the cervix to the vagina have been performed many times with partial success only.

The operation for intra-perineal shortening of round ligaments has met with success with Dr. Morris, of New York, and others. An opening is made in the abdomen in the median line, the peritoneum is split and the ligament itself is drawn out in the form of a loop. The arms of the loop are sutured together, and the ligament is replaced within the folds of the broad ligament which is then closed, and the abdominal wound closed as ordinarily in laparotomy.

Ventrofixation of round ligaments has been described by Dr. Gilliam, of Columbus, Ohio. The usual median incision is made. In case there are adhesions they are broken up and the fundus is brought forward to the opening in the abdomen. A silk thread is carried through beneath the round ligament about one and one-half inches from the uterus through a slit in the peritoneum, the round ligament is brought forward. A sharp pointed forcep is passed through the abdominal muscles fascia and peritoneum about three-quarters of an inch on either side of the lower margin of the incision. The silk thread is grasped with the forceps and it is drawn through the opening with the round ligament so that the uterus is held firmly by the uterine end of the ligament. The ligament is then sutured firmly to the abdominal muscle, so as to prevent its receding. This method of fastening the round ligaments a little to one side of the median line is also repeated on the opposite side, and the median incision is closed as usual. Lesser, of New York, advocates ventrofixation of the round ligament by means of a transverse incision through the abdomen. This method would no doubt be the most practical were it not for severing the rectus muscles transversely, and completely, which method of entering the abdomen very often results in hernia, by reason of the separation of the wound due to muscular contraction. Uterofixation of the round ligaments has been practiced by Dr. J. C. Webster, of Chicago. It is a method by

which the elongated ligaments are fixed to the posterior wall of the fundus while the uterus is firmly held forward by an assistant. In this way the uterus is supported from its posterior wall, it being held upward and forward by the round ligaments.

Ventro-suspension of the uterus is performed as follows: The abdominal incision is made in the median line of the abdomen to within three-quarters of an inch of the symphisis. The fundus of the uterus is grasped with the thumb and finger and brought forward, it is then grasped with forceps and held within the wound. The sutures are either silk, or catgut, or silkworm gut. The sutures are passed through the margin of the wound, then through the fundus of the uterus, including about one-quarter of an inch of the uterine muscle, either in front, at the median line or posterior to the median line of the fundus. The method which I have pursued in fixing the uterus, is to pass the needle threaded with pyoktanin through the rectus muscle fascia and peritoneum from the outside about one-half inch from the margin of the wound at the lower aspect of the incision, thence into the anterior wall of the uterus including about one-quarter of an inch of the uterine muscle passing the needle through the uterine structure at the same depth about one-half inch so that it will emerge a little to the side of the median line on the opposite side, then it is carried out through the peritoneum and rectus muscle on the opposite side from where it entered. The ends of the thread are caught and held with artery forceps until another one or two sutures have been passed in the same manner, and are also fastened in the same way with forceps until the wound through the peritoneum has been sutured with a continuous catgut suture. After the peritoneum has been closed the sutures that have been passed into the uterine wall previously are then tied, so as to bring the uterus close to the peritoneal wound, and at the same time the muscle and fascia are brought together with the tieing of the uterine sutures. The remainder of the wound is sutured as is usual in laparotomy. I have always sutured the anterior wall of the fundus to the abdominal wound, preferring this method to the suturing of the posterior uterine wall, on account of the position the uterus assumes after the operation, and the greater danger of rupture of the uterus during labor.

The points which are principally to be considered in advising ventrofixation are these:

First.—The effect upon labor in child-bearing women.

Second.—Causing of sterility.

Third.—Causing of abortion.

Fourth.—Complications during utero gestation.

In considering the effects upon labor we may say that dystocia is frequently caused in women who become pregnant after this operation and instrumental deliveries become necessary.

Rupture of the uterus has occurred in a number of cases during labor after the operation for ventrofixation. This no doubt is due to the fact that the posterior wall of the uterus has been put upon a stretch and it becomes thin and weaker on account of tension while the anterior wall is supported with the sutures and becomes stronger while the posterior becomes weaker. This objection I think can be overcome by suturing the anterior wall instead of the posterior wall to the wound.

So far as sterility is concerned, the latest statistics show that a very small per cent of women become pregnant after ventrofixation. Out of 808 cases only 56 pregnancies occurred. This is probably due to the constrained position of the womb. The cervix being drawn upward and backward, it may be that the cervical canal becomes obstructed to the ingress of the spermatozoa.

As a factor in the causation of abortion little can be said at this time. There is a record of a few abortions that have been attributed to this cause, but the occurrences have been infrequent. In enumerating complications during utero-gestation, traction upon the scar, and the pain resulting therefrom, the cervix may become posteriorly displaced as pregnancy advances. The anterior portion of the uterus may fail to expand and form a large fleshy tumor obstructing the superior strait. Persistent nausea may be caused by traction upon the scar. The normal period of utero-gestation may be prolonged; to substantiate this complication there is one case recorded.

It remains for the surgeon to choose the best possible method of operation to alleviate these troublesome displacements of the uterus in child-bearing women. A method to support the uterus in a normal position as near as possible without being conducive of the previously mentioned grave complications is the one to be chosen. From what has been learned from the experience of others, and also our own experience, one must naturally suggest that it is better to fix the anterior wall of the uterus. It is safer to

employ a method that will result in the formation of a suspensory adhesion or ligament of sufficient strength to support the uterus and to admit of the normal expansion of the uterus during utero-gestation.

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TURBINOTOMY.

J. P. HARBERT, M. D., BELLEFONTAINE, OHIO.

Removal of a part of any of the turbinated bones may be required where, either from hypertrophy of themselves or abnormalities of other structures, the lumen of the nostril is occluded and nasal breathing interfered with. Other symptoms may make excision necessary, such as reflex irritability of the larnyx, giving rise to cough. Neuralgia, asthma and tinnitus have at times been relieved by this procedure and deafness has been arrested and sometimes improved.

The operation should be done in all cases where the severity of the symptoms demand relief and in such cases as are not relieved by milder means. It is much to be preferred to galvano-cauterization on account of the severe reaction. It is more certain to be successful than the chemical cauterants. General anæsthesia is to be preferred, although swabbing the parts with a twenty per cent solution of cocaine answers fairly well.

Thorough cleansing of the nasal cavity and naso-pharynx should precede the operation. I prefer glyco-thymoline for this purpose. When a general anæsthetic is used I have the patient brought to the semi-recumbent position as soon as anæsthesia is complete, and by the aid of reflected light the mucous and sub-mucous tissues are incised to the bone with a narrow-bladed knife, entering the blade at the outer side and cutting in toward the septum. Then a narrow-bladed saw is used to sever the bone, turning the cutting edge in and taking off as much as the case seems to demand. The section is then completed by cutting the mucous and sub-mucous tissues remaining with the scissors.

There is considerable hemorrhage, which is checked by ice-cold sprays, after which the nostril is lightly packed with gauze, and the patient is kept absolutely quiet for several hours. The gauze is removed the next day, after first using a spray of peroxide of hydrogen, when there will be no difficulty or hemorrhage encountered in gently removing the packing. Occasionally it will be necessary to repack the nostril lightly for another twenty-four hours, but usually all that is needed is frequent cleansing with some form of a douche, using but little force and having the patient keep quiet.

Healing will have been complete in from two to three weeks. If a raw surface exists on the opposite side of the nostril, as when a spur is removed or a septum straightened at the same sitting, care must be exercised to prevent adhesions. A small strip of gutta-percha paper is many times useful in these cases, which is disinfected with a sublimate solution and afterwards rinsed in a salt solution and placed between the two surfaces. This can sometimes be retained for hours if sneezing does not occur.

When adhesions have occurred they are best divided with a cutting instrument. The case should be seen every day, when a small probe may be passed through the cavity. At times the after-treatment of these cases is very trying and tedious, requiring many weeks.

The use of adrenalin to prevent hemorrhage during the operation I have given up, believing that it certainly aggravates the danger of secondary hemorrhage, and it is further open to the objection of so shrinking the soft parts as to make an accurate estimate of the amount of tissue to be excised impossible. This last objection holds good also with cocaine, though it may sometimes have to be used.

I much prefer to have the hemorrhage while my patient is on the table before me, though the field of operation be not so clear, than to deal with a hemorrhage some hours later.

If adrenalin is used the nostril should be rather tightly packed, being careful to carry the gauze well beyond the raw surface and not disturbed for twenty-four hours. This, however, does not positively insure against a secondary hemorrhage, and it is best to be within easy reach of the patient.

I have frequently packed the post-nasal space with gauze or lambs wool to prevent the blood from entering the throat and being swallowed during these operations.

The packing is held in place by a heavy ligature brought out through the unoperated nostril and fastened down on the neck with adhesive strips. This prevents much of the nausea and vomiting of blood which otherwise occurs and is so unpleasant for all concerned.

DISCUSSION.

Dr. Winter approved the technique advised in the paper. He also approved of the argument against adrenalin. He does not remove the gauze in twenty-four hours, as he dreads secondary hemorrhage. He usually leaves it forty-eight hours.

Dr. Johnson has discarded adrenalin entirely. He uses the nipper instead of the saw, except where we have a spur. He thinks we have less hemorrhage with the nipper. He does not have much confidence in douches or sprays. He has good results with glyco-thymoline.

Dr. Foltz has had no cases of secondary hemorrhage from adrenalin, as he had not used it much. He believes that reaction and relaxation follow too soon after its use. He uses it principally for diagnostic purposes. When he operates on strangers he invariably inquires if they are bleeders—if they bleed freely and easily. If they do, he refuses to operate. He leaves the gauze packing in for from thirty-six to forty-eight hours. He does not use solutions in the nose, as the epithelium is not accustomed to them. He believes in using solutions with temperature and specific gravity about the same as that of the blood. Oily sprays leave the membranes engorged, as the oil is not absorbed. Nebulizers are not so objectionable.

SECTION OF THE EYE AND EAR

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CHRONIC CATARRH OF THE MIDDLE EAR.

KENT O. FOLTZ, M. D., CINCINNATI, OHIO.

Synonyms.—Chronic non-suppurative catarrh of the middle ear; sclerosing catarrh of the middle ear.

This is one of the most insiduous of all forms of middle-ear diseases. The usual line of treatment is usually very unsatisfactory. This form can be properly divided into two types. The results in either are the same, if allowed to progress without treatment. One type unfortunately will nearly always reach the point of total deafness, no matter what the treatment. This might possibly be avoided, if the cases were seen early, but as a rule such changes have taken place before relief is sought, so that little can be done. I do not wish to criticise too severely the classical methods employed for treating ear diseases, but there appears to be an inherent belief that nothing but local measures are of any benefit. This of course does not include the time-honored so-called tonics and alternatives, which are usually worse than no treatment.

Remember that diseases of the organs of special sense are as amenable to internal medication as are diseases of other tissues of the body. Modification of the tissues found in these organs exist, it is true, but they are influenced equally as well as any other structures. Working from this basis the majority of these cases should be improved if seen early. The diseases affecting the organs of special sense are no more difficult to treat than the lungs, heart, stomach, etc., but the main reliance must be the constitutional remedy.

In chronic catarrh of the middle ear, as stated, there are two types recognized. In both there is usually a history of repeated attacks of acute or sub-acute catarrh of the middle ear, which either was entirely ignored or the treatment was ear-drops, which is equally as criminal, and the consoling remark made that the victim would outgrow the trouble. There has been too much of the expectant plan in treating these diseases, and when too late for much benefit the patient seeks the specialist.

The exudative or moist form has not been benefited in my experience except in comparatively few cases, and then only when seen early. In the sclerotic type, however, I have had very good success in a large proportion of cases. The pathology will not be dwelt upon, for the reason that one can get this by studying any work on the ear. The treatment employed in the sclerosing type depends upon the condition of contiguous tissues, as well as the condition of the mucous membranes in the nose and throat. When there is dryness of the nasal, post-nasal and pharyngeal mucous membranes, more or less pronounced atrophy of the tissues, glazed appearance, tough, tenacious exudate and co-existing with this a dry appearance of the tympanic membrane and dryness with lack of secretion of the external auditory canal, I usually feel confident of giving some relief to the patient. Of course if there is inner-ear disease shown by the examination there is not much to be expected from treatment. The cases I prefer to treat are those that have not been through the regular routine of inflation and massage, especially that of rarification and compression, as the drum-head is usually so much relaxed by the procedure that but little can be done toward restoring the tonicity of the membrane. Complete anchylosis of the ossicles will also render treatment of no avail.

Treatment.—In these cases the basis of the treatment is specific jaborandi, giving it in such doses as will just keep within the physiological action of the drug. It may be five, eight or even ten drops, but if there is a sensation of depression following the dose the amount is diminished. Specific phytolacca is often given in combination, as there is an inactivity of the mucous glands. In rheumatic types either bryonia or cimicifuga are most frequently employed. The alimentary canal must be kept in as nearly a normal condition as possible, for the action of the assimilative and eliminative structures are of the utmost importance. Pulsatilla will often be indicated, as neurasthenia is frequently

present, and the apprehensive state is influenced by this drug better than any other. In females with nervous conditions, not apprehensive, ignatia is a remedy to be thought of.

If, after six weeks of treatment, there is no increase of secretion in the external auditory canal nor any special change in the character of the mucous secretion, there is but little chance of improvement in the case. Local measures are practically ignored during the first period of treatment. In some cases there will be found lymphoid tissue, the so-called tubal tonsils around the openings of the eustachian tubes. It is my custom to crush this growth with the finger and very often this procedure will improve the hearing and diminish the tinnitus.

My experience with the hypertrophic form has been very unsatisfactory, and I seldom give anything but an unfavorable prognosis, unless of recent origin.

As a preliminary to any work in this line any nasal irregularities should be taken care of, as in most instances no treatment will avail unless there is free normal respiration.

DISCUSSION.

Dr. C. G. Winter said that he had never been able to relieve cases of long-standing middle-ear catarrh. He had despaired of being able to successfully treat them. He had not used jaborandi in physiological doses. Dr. Foltz instructed him to keep his patients under treatment six weeks at least, as it would take this time to determine whether there was to be any improvement or not.

Dr. Johnson stated that he used bryonia for any and all inflammatory conditions. In reply to a question from Dr. Arnold, Dr. Foltz said that he had not had favorable results from the use of massage, and no results unless secretion was established.

Dr. Foltz submitted a brief synopsis of a paper on tonsillar adhesions. In discussion Dr. Daniels said that when the tonsil was broad and flat it could not well be hooked over with a tonsillotome. There was a bad odor present and was there not probably adhesions? Dr. Foltz replied that there was, but that he always looked for adhesions before he began to operate. If the patient gags, then the tonsil will show more plainly.

Dr. Storer asked if any particular trouble would result from adhesion of the tonsils. The answer was that there might be some mild reflex disturbances.

ERRORS OF REFRACTION.

W. N. MUNDY, M. D., FOREST, OHIO.

While thinking how I could best approach the stupendous subject assigned to me my attention was attracted by an abstract in the *Medical Review of Reviews,* entitled "The Physiological Effects of Imperfect Vision Upon Children." The author includes among these effects irritableness, fretfulness, impatience, anger, restlessness, inattention and forgetfulness, and which can be usually permanently overcome only by removing the cause. E. J. Bissell, M. D. (*Homeopathic Journal of Pedriatics*), believes there are three causes of irritableness, fretfulness, impatience, anger, restlessness, inattention, forgetfulness or lack of ambition—first, environment; second, heredity; third, abnormal physical states within the individual.

The eye itself offers the very best illustration of how the physical affects the mental. This is true because by it more frequent and varied stimuli to mind development are received than by other senses. Our minds are stored with the accumulated and elaborated information gathered by the senses. Up to ten or twelve years of age the mind is largely receiving and differentiating sense impressions. The sense material forms the basis for, and naturally precedes the full exercise of thought, reason and imagination, consequently it should be transmitted to the brain accurately and without any undue expenditure of nerve force. Accuracy with sharpness of detail in the mental picture and the amount of nerve force involved in securing it are the two factors we must trace in showing the relation between physical conditions and the peculiar mental symptoms enumerated. Hyperopia, myopia, astigmatism, lack of muscle balance and varying degrees of opacity in the optic media, one or several combined, are among the causes of these physical conditions.

We feel that anomalies of refraction are not only responsible for these conditions, but that they produce physical defects and suffering as well. J. H. Claiborne, of New York, concludes a paper entitled "The Effects on the Nervous System of Children of Uncorrected Refractive Errors and Muscular Imbalance," as follows: "(1) Nervous symptoms of a variety of kinds occurred as the result of eyestrain. (2) Eyestrain was due to refraction errors, the imbalance of the external ocular muscular system, or

more frequently to a combination of the two. (3) Of these two the refractive errors were by far the more frequent causes. (4) Muscular imbalance alone might cause it. (5) Headache was by far the most common nervous symptom in children caused by eyestrain. (6) The headache was chronic or induced directly by near work and was generally in the forehead or temples. (7) Migraine or hemicrania, due to eyestrain, was comparatively rare in children. (8) Any nervous symptoms in children should arouse the suspicion of ocular defect, either as a direct or contributing cause. (9) The refractive correction should be made under atropine. (10) Muscular defects were secondary to the refractive and should be corrected only in certain cases."

The above quotations practically concludes nearly all there is to be said in reference to the correction of refractive errors. We have frequently noticed that the greatest amount of reflex trouble was not always associated with the largest refractive error. Often have we corrected a hyperopia of from 2.50 to 3.50 D, which produced but little reflex trouble, the patient only complaining of some diminution of vision, whilst on the contrary a hyperopic astigmatism of .25 or .50 D would produce manifold symptoms, such as headache, blurring of vision, pain in the eyes, inability to study and possibly twitching of the eyelids. The headache may be orbital or occipital.

Lately our attention was attracted by an article entitled "The Abuse of Glasses." While there may be some excuse for the publication of such an article, it is nevertheless a fact that many things in medicine are abused. Only a few years ago it was orificial surgery; with the advent of the x-ray it was static electricity, yet because abused no one doubts their efficacy when correctly used or properly applied. It is equally true with the use of glasses. We have seen glasses prescribed when not necessary, but we have more frequently prescribed with most excellent results and when medicine internally failed to relieve. It is impossible in a paper of this scope to consider even a small part of the subject assigned to me. To correctly do so would necessitate the writing of a volume of no mean size. We have generalized only. Among the nervous or reflex conditions we have positively cured by correcting errors of refraction, are insomnia, chorea, localized spasms of the eyelids, migraine, headache, blurring of vision, vertigo and that vague, indescribable condition, nervousness or neurasthenia.

INTERNAL USE OF DRUGS IN EYE DISEASE.

G. W. JOHNSON, M. D., SAN ANTONIO, TEXAS.

You will pardon any attempt on my part at this time to remind you that the internal use of drugs in the treatment of diseases of the eye is rational and has been much neglected. It is only necessary for us to go over the subject in our text-books and come in touch with ophthalmologists to convince one that those of us who give special attention to diseases of the eye often fail to give proper study to internal medication in the care of diseases of this special organ. I feel that the Eclectic system of medicine has won for itself a prominent place in the medical world by giving serious and scientific thought to the physiological action of drugs; a fact that is becoming recognized by those of us who are limiting our practice to special lines.

Much has been claimed for the germ origin of disease, but it cannot be denied, it seems to me, that when the protective resources of the human body are perfect that germs cannot produce disease. It is when these protective resources are imperfect that germs make their inroads on the physical economy. The depressed and unresisting body furnish rich soil for germ life, but we cannot say that they are the primary cause of disease. In my opinion, as has been maintained by others, the primary cause of disease has its origin in the ganglionic nervous system. If we maintain that drugs have a therapeutic effect upon the body we are bound to place the seat of the trouble in the ganglia. The many symptoms presenting in disease and manifesting themselves in diseased conditions of special organs prove conclusively that some of the ganglia preside over pathological changes.

Surgery in its present advanced state has many times ignored drugs for the relief of disease, forgetting that probably if the disease had been treated with remedies whose action upon these ganglia had been well understood the disease might have been checked and brought to a favorable termination. While it is true that a developed tumor may not be influenced by internal medication, it does not prove that the disease progress might not have been interfered with if drugs had been used with a direct knowledge of their effect upon the ganglia presiding over its development.

Specific medication, the greatest boon to scientific medicine and

the product of the Eclectic school, has done much to inspire the physician with confidence in the care of the sick, and has made a long stride towards certainty in medicine never dreamed of until the Eclectic faith engaged the mind of medical men. Internal treatment does not interfere with any surgical or local measures that may be necessary in the cure of disease. On the contrary, it proves of great assistance to the surgeon and renders local treatment unnecessary in many cases. No one should undervalue local measures necessary to add to the comfort of a diseased eye, nor fail to give due weight to surgical assistance, but it does seem to me we hasten along in our work without stopping to consider the good that might be done by advising properly selected internal remedies, which is a serious mistake.

When we come to study the anatomy of the eye we find that every tissue that enters into the anatomical make-up of the body is represented in this special organ. This fact is interesting in itself and justifies us in the position that if drugs internally administered, affect other tissues of the body, they should affect those of the eye. We are only to select a few remedies and note the assistance they render in properly selected cases to become convinced of the value of internal medication in the treatment of diseases of the eye.

Kali mur. 2x. In keratitis there is no remedy with which I am familiar that proves of the assistance this one does. This is especially true after the acute symptoms have somewhat subsided. I give five grains 2x every two or three hours. Sometimes I put ten grains in ℥ j of water and instil into eye three or four times daily. The ulcers will heal more kindly with this remedy than any other I have ever used.

Specific euphrasia. This is the remedy in catarrhal affections of the conjunctiva, the condition vulgarly called "pink eye." I have had success with this remedy in these cases and recommend it.

In inflammation of the iris I put great reliance in specific rhus tox. The sharp shooting pain extending from eyeball to temple and forehead is relieved or very much ameliorated by this remedy.

In recalling the cases of iritis that I have treated I am thoroughly convinced that the cases I have treated with rhus tox. have done very much better. In treating iritis one must not forget his atropine. Should this be neglected you are very apt to

have adhesions between the posterior surface of the iris and anterior surface of lens capsule.

DISCUSSION.

Dr. Foltz said that he had not had good results from the use of euphrasia. He does not doubt that others obtain good results. He unloads the bowels first and then gives calcium sulphide and potassium bichromate when there is stringy secretion. In cases where the discharge is non-excoriating he gives hamamelis. In case of an excoriating discharge he gives Fowler's solution. When the discharge is watery he gives rhus tox. in very small doses. When œdema exists he gives apis and apocynum. When there is supra-orbital neuralgia and where motion increases pain he gives bryonia. Where rheumatism is a complication he gives cimicifuga, and if constipation be present also he adds rhamnus. He allows himself to be guided in the selection of drugs by the same specific symptoms that he would follow in general disease. He has observed that in chronic cases the dosage should be smaller than in acute cases.

Dr. C. G. Winter reported a case of traumatic catarrh of the eye. He saw the case early and gave an unfavorable prognosis as to the sight, but believed that he could preserve the globe of the eye. He sent the patient to the hospital, where he suffered great pain. He gave aconite internally and applied hot applications. The patient recovered with fair distant vision. The doctor gives kali mur. after active symptoms have subsided. He asked Dr. Foltz if it was good practice to enucleate an eye in case of traumatic catarrh. Dr. Foltz said it was best to wait and keep the patient quiet and adopt a conservative course, thus giving the patient a chance.

Dr. Johnson stated that if the capsule of the lens was ruptured the lens would swell and cause great pain and occupy the anterior chamber. Paracentisis would relieve the pain, but it might be necessary to remove the lens. He has a case now under consideration. The vision is improving under a conservative course. Iritis will often complicate these cases and it has been his custom to use a mydriatic. He uses atropine with care. When considering enucleation he advises that we make haste slowly unless there is a puncture. It is surprising how much injury an eye will stand and recover under careful treatment.

Dr. Harbert cited a case where a fine wire had penetrated the globe of the eye. The globe was removed and there was complete recovery. He always uses phytolacca in corneal ulceration.

Dr. Johnson reported a case of injury with a movable body in the eye. It proved to be the pith of a weed and was floating in the aqueous humor. He made an incision with a cataract knife and drew out the foreign body and the case made a complete and uneventful recovery.

THE MANAGEMENT OF IRITIS.

CHARLES H. FRANCIS, M. D., CHICAGO, ILLINOIS.

Inflammation of the iris is a serious affection. It is often fraught with great danger to the eye. In the treatment of this disease a number of points must be kept clearly in mind.

The structure of the iris and its exact relation to surrounding parts must not be forgotten. The iris is essentially a vasculo-muscular organ. Pigment cells are numerous, both within the stroma of the iris and on its posterior surface. The blood vessels —branches of the anterior and posterior ciliary arteries—form a circle just behind the ciliary margin of the iris, known as the greater vascular circle of the iris. From this circle branches pass radially to the pupillary margin, where another circle of arteries is formed, known as the lesser vascular circle of the iris. The muscular structure has the same general arrangement as the blood vessels.

The sphincter pupillæ muscle, or the circular fibres, are for the most part near the pupillary margin. It is this muscle which contracts the pupil and expands the iris. It is supplied by the third nerve. The radial fibres are fewer in number, non-striated and are under control of the sympathetic. These fibres dilate the pupil and contract the iris. This empties the blood vessels in this locality, and is therefore a very desirable action to maintain throughout the course of disease.

It is claimed by some authors that the blood vessels themselves, which are controlled by the sympathetic, contract and aid in the dilatation of the pupil. The arrangement of both the blood vessels and the muscle fibres is very much like the arrangement

of the fibres in a spider's web, except that in the latter the fibres are farther apart.

The iris is usually described as a curtain which hangs loosely in the anterior chamber. This is by no means the case, except in the aphakic eye. The pupillary margin of the iris rests quite firmly upon the anterior capsule of the lens, a fact which accounts for the frequency of adhesions at this point. The lens, which completely fills the pupillary space, pushes the iris forward. The pupillary margin is therefore more anterior than the ciliary margin, making the iris disc shape as it hangs in its normal position. The shape of the iris might be likened to that of the cover of an old-fashioned cuspidor, the convex portion being directed forward and the concavity, which is completely filled by the umbo of the lens, directed backward. The lens fills the pupillary space, just as a large rubber ball might fill the concavity and the opening in the cover of the cuspidor. At the ciliary margin the iris is continuous with the ciliary body and choroid. Practically they may be considered one, hence the frequent involvement of the ciliary body and choroid as a complication of iritis.

The inflammation of the iris itself is not the real source of danger to the eye, but rather it is the results of the inflammation and the complications which we fear. The latter are numerous and often serious. Cyclitis and chloroiditis occur most frequently. In fact, it is said that iritis, pure and simple, does not occur, but that every case of iritis involves the ciliary body to some extent. Let this be as it may, certain it is that cyclitis and choroiditis are frequent occurrences during the course of this disease. Keratitis, conjunctivitis, retinitis and optic neuritis may occur at any time, greatly increasing the gravity of the situation.

Of the squelæ of iritis, posterior synechia is the most frequent. We have seen that the iris rests firmly upon the lens and is pushed forward by it. As a result of the inflammation an exudate is thrown out which binds the posterior surface of the iris to the anterior capsule of the lens. These occur as single points of adhesion, or the entire pupillary margin may be bound down, causing a so-called annular synechia. The latter, by interfering with the communication between the anterior and posterior chambers, is often the cause of glaucoma. Where but a few points adhere, and cannot be broken up, the eye often becomes "irritable," and recurring attacks of iritis become very troublesome and may finally result in blindness. The pigment cells upon the posterior

surface of the iris are numerous, constituting a layer which is not very firmly attached to the stroma. When tolerably firm adhesions between iris and lens are broken up this pigment layer pulls away from the iris and remains adherent to the lens capsule, a circumstance which often greatly reduces the vision.

Not infrequently the exudate thrown out during the course of an irido-cyclitis is so extensive as to completely occlude the pupillary space, or even fill the posterior chamber. In the latter case the exudate becomes organized and later may contract, pulling the tissues inward, causing detachment of the retina and softening of the eyeball.

In some few cases, as a result of the inflammation, the iris becomes atrophic and responds slowly, if at all, to light and accommodation.

Etiology should perhaps be thought of first in considering the management of iritis. We know that the disease may be caused by syphilis, rheumatism, "scrofula," tuberculosis, the acute infectious diseases, traumatism, gonorrhea, etc. Many cases occur without known cause and are designated idiopathic. Sympathetic iritis is a well-known variety of the disease.

With these points in anatomy, sequelæ and etiology well in mind, the physician will approach the treatment of iritis with at least a due appreciation of the situation, and with a little reasoning a large majority of the cases will receive rational treatment, although he may have had but little experience in the management of the disease.

In taking up the treatment it is best to first consider the general plan of treatment, and then the different varieties of the disease from the etiological standpoint. Every case of iritis, when first seen, should be given a brisk saline cathartic and put to bed and on light diet. It is impossible to properly treat the disease in the early stages, especially the acute forms, while the patient is up and about taking more or less exercise. I am well aware that this is not usually considered necessary, but I am thoroughly convinced that it is the only correct method for the first few days at least.

Atropine sulphate is the next agent thought of. In point of importance it comes first. It is my practice, with persons under forty or forty-five, provided no contra-indication exists, to begin at once with two or three drops every three hours of a solution of atropine sulphate, ten grains to the ounce, directing that pressure

be made over the canaliculi to prevent the passage of the solution into the nasal cavity, where it would be absorbed and perhaps produce a decided systematic effect. As soon as the pupil is fully dilated the strength of the solution should be reduced one-half and used but three times daily. In the cases where the pupil will not dilate and the adhesions are not broken up it is best to use the atropine but a few days or a week, then stop for a few days, alternating in this way until the points of adhesion give way or until it is found impossible to break them up. I have succeeded in this attempt in several cases after the inflammation had subsided by the alternate use of eserine and atropine. The strength of the eserine solution should be about one grain to the ounce. Three drops of this can be used every three hours for two or three days, contracting the pupil down firmly, when the atropine should again be commenced. This alternate contracting and dilating of the pupil will often break up adhesion that cannot be reached in any other way.

In some cases atropine solution will set up an irritation of the conjunctiva and may produce considerable annoyance and pain. In these cases atropine ointment made with vaseline, the same strength as the solution, may be used. This is very much less irritating and is very effective. An inflamed eye, particularly when the conjunctiva is involved, does not absorb atropine well.

It is always best while using strong solutions of atropine or eserine to have the patient under the constant observation of the physician or a competent eye nurse. In all acute cases of iritis the saline cathartic should be repeated every second or third day, and either aconite or veratrum viride used in pretty full doses. The sedatives should be discontinued after the first two or three days. In all forms of the disease the eye should be thoroughly irrigated with a warm saturated solution of boric acid or sodium bi-borate. For the pain and inflammatory symptoms hot fomentations are often very serviceable. To be of benefit they must be applied hot and changed frequently. They should be changed every minute for a half-hour, then let the patient rest for two hours, when the compresses are again applied. I have not found cold to be of much service except in the traumatic cases. The eye should not be bandaged, but a dark shield, or better still, smoked lenses should be worn constantly. Aside from its specific effect in the rheumatic cases, salicylate of soda has a decided effect in controlling the pain and other symptoms of this disease.

The same may be said of bryonia alba. The former should be used in ten grain doses every three or four hours. One drop of the normal tincture or specific medicine bryonia may be given every two or three hours.

To correctly manage the special forms of iritis a wide experience in general medicine is required. The special treatment for the specific variety will vary according to the stage and form of syphilis in which it occurs. Those cases occurring in the early stages of the acquired form I prefer to treat with the protoiodide of mercury, one-fifth to one-third of a grain, and carbonate of iron, five grains, three times a day. These, with out-door air (after the first few days) and good food, have served me well. Other remedies may be, and frequently are, indicated, particularly phytolacca. The cases which occur during the tertiary stage should be given full doses of the iodide of potash and tonics. Iritis resulting from heredity is more than likely to be chronic in its course and to involve the deeper structures of the eye. The treatment should aim to build up the patient. Good food, constant out-of-door life, iron tonics (particularly the syrup of the iodide of iron), arsenic and the daily cold bath are the important factors in the treatment. Rheumatic cases should be given the salicylates in pretty full doses. Bryonia will often be indicated by the increased pain on motion; rhus tox by decrease of pain when the eye is moved. Any of our anti-rheumatics should be prescribed as indicated. Coffee and meats should be taken sparingly, if at all.

Where "scrofula" is the etiological factor the system should be placed in the best possible condition, the patient advised to remain out of doors most of the time and full doses of syrup of the iodide of iron and cod oil given. The diet should consist largely of milk, eggs and green vegetables.

In the tubercular form the patient should remain in the open air both night and day. Tonics and cod oil, with perhaps a preparation of guaiacol, is all the medication advisable. The diet should be the same as for the scrofulous variety.

The systemic treatment of those cases occurring during the course of the infectious diseases will of course vary with the disease present. The main point here is to begin the local treatment early.

The traumatic cases require careful watching and are often most difficult of management. Ice compresses, changed every

minute for a half-hour, then resting for two hours, has given good results in my hands. Veratrum viride, one drop of the normal tincture or specific medicine every two hours to keep the pulse tension low, should be used in every case. Where the ciliary body is also injured, if the eye is blind and painful, enucleation should be done without delay. When there is still considerable vision or a probability of the vision being restored and the eye remains painful for a long time and the inflammation does not entirely subside, it is a very difficult problem to decide whether to enucleate or not. If you do enucleate, you may deprive the patient of a useful eye. If you do not, he may lose the other eye from sympathetic ophthalmia. If symptoms of irritation appear in the other eye, the operation should be done at once. The mistake is often made of waiting too long. There is no special treatment of gonorrheal iritis. The urethra should, however, receive careful attention. The idiopathic cases must of course be treated entirely symptomatically. Sympathetic iritis, when well under way, must also be treated symptomatically. In the stage of irritation or in the very early stage of inflammation removal of the exciting eye will generally prove rapidly curative. On the other hand, if the inflammation has made some progress or is pronounced, the removal of the other eye would only add to the trouble. This is true of any operative procedure undertaken at this time. When the inflammation has entirely subsided the exciting eye, if blind, should be removed.

The sequelæ of iritis often require surgical treatment, but the subject is too extensive for consideration here. Iridectomy, for the purpose of establishing communication between the anterior and posterior chambers, in annular synechia, is often required as soon as the condition of inflammation will permit.

I wish, in closing, to say again that to successfully manage most cases of iritis the physician must have had a wide experience in general practice.

TREATMENT OF ULCERATION OF THE CORNEA.

J. P. HARBERT, M. D., BELLEFONTAINE, OHIO.

I desire in this paper to speak only of the management and treatment of corneal ulceration. These cases, whether mild or severe, should be under our personal care once or oftener each

day. In addition to this office treatment the patient should be provided with proper home treatment, to be used every hour or less often, as the severity of the case demands.

We always think first of boric acid as the cleansing agent best suited to accomplish as nearly perfect a state of asepsis as possible. This is used as the first part of a routine treatment in the office and is also furnished the patient, usually in combination with Lloyd's hydrastis.

Solution of corrosive sublimate are preferred by some, but I feel much safer with the boric acid solution and find that it answers admirably. We have corneal antiseptics that are more efficient, because we are able to retain them longer in contact with the diseased surface and not liable to produce a corneal haziness. Hypo-sulphite of soda C. P., ten grains to the ounce of distilled water, used as eye-drops every one or two hours, is an excellent antiseptic and has given me good results.

After using the boric acid solution for cleansing we instill a few drops of an atropine solution in most cases. Where there is a peripheral ulcer or a tendency to glaucoma, eserine is used instead. Atropine is a wonderful reliever of pain in cases where the iris is involved and produces a more healthy appearance of the ulcer. In cases where it fails to dilate the pupil, after persistent effort, it should be discontinued, for glaucoma may be brought on by its further use. Atropine and eserine may be alternated several times during the day in cases threatening glaucoma and adhesions simultaneously.

The next step in the treatment is the insufflation of some finely powdered antiseptic. Iodoform has been extensively used for this purpose, and I believe it should be placed first on the list of corneal antiseptics. Its disagreeable odor is its only objection, and I find iodosyl a very excellent substitute and practically odorless. Boric acid is used by some as a dusting powder. Its action must be feeble compared to other antiseptics. Aristol is reputed to be an excellent remedy, dusted on the ulcer twice a day. In old chronic ulcers, sometimes called indolent ulcers, calomel as a dusting powder answers well. The yellow oxide ointment is extensively used in these cases, but must be avoided in acute conditions.

To relieve the pain a solution of morphine may be employed if necessary. Dionin in from two to four per cent solutions is a very useful drug and acts as a pain reliever for several hours.

Its primary action is to produce irritation and congestion of the eye, and if used too strong causes edema of the conjunctiva. Hamamelis should not be forgotten as one of the best agents to control the bruised and tender feeling and lessen conjunctival congestion.

In some very tedious and persistent cases trichloracetic acid may be applied in saturated solution, carefully touching the edges and bottom of the ulcer with an applicator which has been dipped in the same. This produces but slight reaction and may be used every day or two for a week or more.

In purulent cases a solution of peroxide of hydrogen acts well as an eye-wash. The patient should be instructed to bathe the affected eye frequently with hot water. This relieves pain and hastens recovery. On no account are poultices of any kind to be employed. Solutions of cocaine are also barred from our treatment and are used only when making stimulating applications.

The use of the bandage is relied on to prevent perforation when it is threatened and may also give comfort by immobilization of the lids. Its use is interdicted by a profuse discharge. Retained secretions soon undergo decomposition and are a source of infection.

In severe cases the patient must be kept quiet and preferably in bed. In milder cases moderate or gentle exercise in the open air is helpful.

Paracentesis may be required by glaucomatous symptoms or if perforations seem likely to occur. If a prolapse of the iris occurs we should endeavor to replace it by using either atropine or eserine, according to its location. Failing in this, the protruding portion is snipped off with small curved scissors, under cocaine, and a compression bandage applied.

Nasal disease should be sought for and corrected if present. Entropium, trachoma or lachrymal troubles must be removed, and will be found the exciting cause in some instances.

Internal treatment, according to our specific indications, will be found helpful, though in chronic cases our faith in any treatment is sometimes severely tested. Specific aconite will be useful if the case is seen in the beginning; specific rhus tox in traumatic cases and those due to wet and exposure; specific bryonia with neuralgia of the fifth nerve and rheumatic tendencies.

These three remedies will usually be all that will be required in acute ulceration. In cases of longer standing we will use

Fowler's solution, calcium sulphide or potassium iodide, according to their special indications. I nearly always use specific phytolacca in corneal affections, believing that it exerts a specific beneficial effect upon the lymph circulation in the cornea. Specific pulsatilla and specific euphrasia are good agents for controlling excessive discharge. Specific apis will be called for in edematous cases, with defective urinary secretion. Specific belladonna for the photophobia will prove efficacious. Hamamelis is a good remedy for hemorrhage into the anterior chamber and to relieve soreness of the ball.

The bowels should be moved once or twice a day with any gentle aperient. Occasionally morphine or Dover's powder will have to be used in order to secure a few hours' rest from very severe pain. In theory this is wrong, but I have had cases in which it seemed an absolute necessity.

DISCUSSION.

Dr. Foltz curettes the ulcer after cocainizing and thoroughly cleansing. In specific cases he wraps cotton tightly on a probe and dips it into iodine and touches every part of the curetted surface. In cases of syphilis he uses ninety-five per cent carbolic acid as above. In gonorrheal cases he uses nitrate of silver solution, twenty grains to the ounce. He makes one application after curetting. With children he gives lime water internally. With adults he uses hepar sulphate. He finds scrofula present in a large number of cases. In these he gives some form of lime and silica alternately. He sometimes combines two or three specific medicines that are indicated. Pain he finds very hard to combat. He uses morphine in severe cases. Sometimes a plain ointment of vaseline will relieve the pain. He prevents closure of the eye if possible. He does not use cocaine continuously. It is a dangerous remedy and renders the epithelial surface more liable to infection. For pain he puts two grains of morphine in a half-ounce solution of boric acid and uses that as eye-drops. Internally he uses cimicifuga a great deal, as well as bryonia and rhus tox. He treats the ulcer as though it were an ulcer of some other part of the body. He hardly ever uses powders as an insufflation, except in asthenic cases. He commends the use of phytolacca, as no one drug exerts a greater influence on lymph circulation. He gives potassium iodide in syphilitic cases. As an eliminative agent he uses jaborandi. He uses this agent where the secretion

is defective or of too watery a character, but not where it is mucoid in character. In cases of perforation, if they are recent, he uses atropine and snips off with scissors the protruding parts. If seen late he takes no action until the inflammation subsides.

Dr. Winter cautioned concerning diet, especially in children. The very plainest possible nutritious diet being demanded. He uses the actual cautery in old and indolent ulcers.

Dr. Johnson emphasized Dr. Foltz's opinion of cocaine. He also believes it to be detrimental. He uses formalin in preference to carbolic acid, in solutions of one to two thousand. In cases of full tongue and full tissues he uses arsenic internally. He uses eupatorium a great deal. He prefers morphine to cocaine.

Dr. Arnold stated that where cocaine was used the patient should be kept in ignorance of it.

DISCUSSION OF OPHTHALMIA NEONATORUM.

Dr. Winter believes it to be within the power of the physician to prevent or abort every case. He uses a solution of from one-half to one per cent of nitrate of silver as a routine treatment. He uses cold compresses every two hours for fifteen minutes at a time. He takes great pains to protect the uninfected eye.

Dr. Storer uses the sulphocarbolate of zinc and boric acid with pinus canadensis.

Dr. Foltz believes in the use of nitrate of silver, ten to twenty grains in an ounce of water. He everts the lids and uses a salt solution afterwards, then wipes out all the albumenoid substance with a cotton brush. He follows this with equal parts of Lloyd's non-alcoholic calendula and Lloyd's hydrastis. He mixes a given equal quantity of these and allows them to stand two or three months, filtering several times in that period. He uses a few drops of this in a boric acid solution every two hours. In severe cases he uses strong solutions of nitrate of silver. He applies boric acid and white vaseline over the nose and contiguous skin and insists upon absolute cleanliness. He does not use common vaseline or lard. The calendula and hydrastis solution will sometimes cause severe smarting a short time.

Dr. Ballington, of California, reported a case which he saw first on the fourth day. The swelling was very great. The eyes bulged and the ball could not be seen for the swelling. There was perforation of the left eye below the pupil. He used boric

acid and nitrate of silver. The child is practically blind. There is a white spot at the point of perforation. Dr. Johnson said in these bad cases the treatment must be heroic. He believed in nitrate of silver and boric acid. He everts the lids and pencils them with the nitrate of silver solution, twenty per cent. He follows this with formalin in a three to five thousand solution. Dr. Winter would caution against poulticing. He saw one case that had been poulticed only during one night and there was complete destruction of the eye.

Dr. Mendel asked if calendula and witch hazel in the form of a pack would be permissible. Dr. Winter said he considered that treatment wrong. He said he considered moisture and heat detrimental.

Dr. Johnson strongly advised against poultices under any circumstances. Dr. Winter cites a case of corneal puncture that had been stitched with seven stitches. He did not believe in stitching the cornea in any condition. Dr. Daniels used bicarbonate of soda solution as a cleansing agent. Dr. Johnson never used nitrate of silver as eye drops. He applied them directly to the lids or not at all.

PART III

TRANSACTIONS

OF THE

National Eclectic Medical Association

THIRTY-FOURTH ANNUAL MEETING

ST. LOUIS, MISSOURI, JUNE 14, 1904.

FIRST DAY—OPENING SESSION.

The Thirty-fourth Annual Session of the National Eclectic Medical Association, of United States of America, convened, pursuant to adjournment, in the Auditorium of the Epworth Hotel, in the City of St. Louis, Missouri, on the morning of Tuesday, June 14, 1904.

The session was called to order at 10:06 a. m. by the President, Prof. Rolla L. Thomas, M. D., of Cincinnati, Ohio.

The President introduced the Rev. C. R. Carlos, D. D., of St. Louis, who invoked the divine blessing in the following words:

OPENING PRAYER.

"We invoke Thy blessing, our God, Father in Heaven, on this assembly this morning. We pray for Thy blessing upon the National Eclectic Medical Association; upon every member of it. We pray Thee that they be guided in wisdom from above, and that they be led by Thy spirit in their deliberation, toward those things which will make for the good of humanity, to whose cause they are consecrated. We thank Thee for their presence, and pray, as they assemble here from time to time, that they may realize that their assembling is for good, and that it shall ad-

vance the interests of the great profession to which they have given their lives. We pray Thy blessing to rest upon all the good they do everywhere, scattered throughout this great country. In their absence from their homes, we pray Thy blessing to rest upon their families and upon those who commit themselves to their care from time to time. We pray Thee, Our Father, that while they meet here they may realize that while in a measure this is a school in which there is much to learn, they will be very conscious of the fact that the Great Physician of all is accessible to teach them those lessons which will make them more capable to do the great work for humanity they are needed to do. Again we invoke Thy blessing on the physicians of this Association; direct them in carrying on this great work, and may everything redound to Thy glory.

"Our Father who art in Heaven, hallowed be Thy name. Thy Kingdom come, and Thy will be done on earth as it is in Heaven. Give us this day our daily bread, and forgive us our debts as we forgive our debtors. Lead us not into temptation, but deliver us from evil, for Thine is the Kingdom and the Power and the Glory, forever, Amen."

The President said: "The gentleman who was to welcome us to this city is not present at this hour, but will be here later. We will defer the opening addresses until Col. Martin arrives. It is apparent to us that we have a quorum present this morning. We will therefore have a roll call of the officers by the Secretary."

ROLL CALL OF OFFICERS.

The Secretary, Dr. Ellingwood of Chicago, then called the roll of officers, to which all responded.

Dr. G. W. Boskowitz of New York, moved that the minutes as printed in the published transactions of the past year be approved. The motion was seconded and carried.

The President said: "I would like to ask, before we proceed further with our deliberations, as this room is quite open, that the speakers, when they rise to address the Association, speak quite distinctly in order that they be heard. We have today an all-day session. I hope you will defer your visiting the Fair until tomorrow and attend the Association today."

COMMITTEE ON CREDENTIALS.

The President appointed as a Committee on Credentials Drs. Bloyer, Kinnett and McCann.

ADVISORY COMMITTEE.

Dr. Boskowitz of New York, Dr. Farnum of Illinois, Dr. Wilmuth of Nebraska, Dr. C. G. Winter of Indiana, Dr. J. K. Scudder of Ohio, Dr. Downs of Texas, Dr. Harvill of Tennessee, Dr. Sharp of Oklahoma and Dr. Miles of Colorado were appointed by the President as the Advisory Committee for this session.

CHANGES IN COMMITTEES.

Dr. Perce of California, was appointed to take the place of Dr. McLain on the Committee on Medical Colleges.

Dr. Sharp of Oklahoma, was appointed to take the place of Dr. Mundy on the Committee on Necrology.

Dr. Welbourne of California, was appointed to take the place of Dr. Stetson on the Committee on Medical Legislation.

REPORT OF THE TREASURER.

The treasurer, Dr. W. T. Gemmill, of Forest, Ohio, being called upon, presented the following as his annual report:

Receipts—

Balance on hand from report of June, 1903		$825.62
Annual dues received for the year		899.00
Initiation fees received for the year		609.00
Total		$2,333.62

Disbursements—

As per orders No. 37 to No. 62, inclusive	$2,028.85	
Expense account, Dr. Gemmill, treasurer	25.48	
		$2,054.33
Balance on hand		$ 279.29

Disbursements Itemized.

Order No. 37.	To Dr. J. K. Scudder, badges, Indianapolis meeting ..... $	20.00
Order No. 38.	To Daniels Company, printing circulars, postals, etc.	12.00
Order No. 39.	To Osgood Company, "National Headline"	8.60
Order No. 40.	To Robert O. Laws Co., rebinding burned vols., transactions.....	5.50
Order No. 41.	To Dr. F. Ellingwood, incidentals (March 1st to June 10th).....	37.03
Order No. 42.	To Daniels Co., printing "Announcement" of N. E. M. Association.....	110.00
Order No. 43.	To Dr. F. Ellingwood, expense, trip South for N. E. M. Asso.....	175.00
Order No. 44.	To Dr. N. A. Graves, expense, corresponding secretary N. E. M. Asso....	28.85
Order No. 45.	To Dr. N. A. Graves, expense, corresponding secretary N. E. M. Asso....	24.00
Order No. 46.	To Dr. F. Ellingwood, expense, recording secretary N. E. M. Asso.....	31.00
Order No. 47.	To Dr. F. Ellingwood, services, Rec. Sec., 1902 and 1903, N. E. M. Asso..	300.00
Order No. 48.	To Mrs. Boyd, stenographer, Indianapolis meeting N. E. M. Asso.....	100.00
Order No. 49.	To Dr. W. T. Gemmill, Treas., expense, Indianapolis meeting N. E. M. Asso..	36.00
Order No. 50.	To Daniels Co., printing stationery, officers N. E. M. Asso.....	37.90
Order No. 51.	To Dr. F. Ellingwood, incidentals, June 11th to Sept. 20th.....	25.66
Order No. 52.	To Dr. F. Ellingwood, postage on transactions N. E. M. Asso.....	69.53
Order No. 53.	To Geo. Hornstein Co., printing transactions N. E. M. Asso.....	465.55
Order No. 54.	To Dr. F. Ellingwood, incidentals and extra clerk hire.....	33.88
Order No. 55.	To W. D. Messenger Co., envelopes, N. E. M. Asso.....	6.00
Order No. 56.	To Daniels Co., printing postal cards, N. E. M. Asso.....	3.35

Order No. 57.	To Hornstein Co., printing bulletins and circular letters	52.00
Order No. 58.	To Epworth Hotel, St. Louis, Mo., advance fee for rates	100.00
Order No. 59.	To Dr. F. Ellingwood, postage on circulars	50.00
Order No. 60.	To Dr. F. Ellingwood, expenses of itinerary, N. E. M. Asso	200.00
Order No. 61.	To Dr. F. Ellingwood, postage on "Announcements" N. E. M. Asso	50.00
Order No. 62.	To Whitehead, Hoag & Co., for badges for St. Louis meeting	47.00
Order No. 63.	To treasurer's expense account	25.48
		$2,054.33

DR. BOSKOWITZ: Moved, that the report of the treasurer be referred to the auditing committee and if found correct, filed.

REPORT OF THE SECRETARY.

The secretary, Dr. Finley Ellingwood, presented his annual report in the form of a short address. (The report is printed on page 19 of this volume among the addresses, etc.—ED.)

DR. BOSKOWITZ: Moved, that the report be referred to a committee of three who may select such portion for recommendation as they think proper and report back to the association later in the session.

Seconded, and so ordered. The chair appointed as such committee, Drs. Boskowitz, Russell and Harvell.

REPRESENTATION COMMITTEE TO NATIONAL CONGRESS OF TUBERCULOSIS.

The president announced that he had appointed as a committee to represent the Eclectic School of Medicine at the National Congress of Tuberculosis in Washington, Drs. Miles of Denver, Gemmil of Ohio, and Perrins of Boston. The incoming president will appoint the rest.

Dr. Boskowitz asked permission to offer the following resolution:

SPECIAL LEGISLATIVE COMMITTEE.

Resolved, That a special legislative committee be appointed to report at the next annual session, such legislation, by amendment to, or revision of, national, state, or local society constitutions, or laws, or otherwise, as may be deemed desirable and necessary to serve the best interests of the Eclectic Medical profession, and to unify local, state and national societies.

The resolution was referred to the Advisory Committee.

RESOLUTION CONCERNING WILDER'S HISTORY OF ECLECTIC MEDICINE.

The resolution by Dr. Munn was presented, and referred to the Advisory Committee on the above matter. Dr. Duvall moved that the committee be asked to report on the above resolution at 10 o'clock on Wednesday morning. The motion was seconded.

Dr. Boskowitz: As temporary chairman of that committee, said, "I object to any motion of that kind being carried at this time. That is my personal objection. We have had placed in our hands a number of papers, how many, I do not know, but I do not see any reason why any special preference shall be given to one resolution above any other. You have had experience with the members of this committee and know that they will transact the business as rapidly and conscientiously as they can. They do not desire and will not take any special instructions on a line of that sort. They will not procrastinate. We will do our duty and take these things systematically as they come up. If we can reach this matter to report this afternoon we will do it, and if we can not reach it until Wednesday or Thursday we can not help it."

Dr. Duvall, with the consent of the second, withdrew the motion.

At this moment it was announced that Colonel Martin, who had been delegated by the mayor of St. Louis to welcome the Association to St. Louis, was present. The President introduced

him to the Association which listened with marked attention and frequent applause to the colonel's eloquent remarks. (The address and response are on page 15 of this volume.—ED.)

Dr. Helbing, chairman of the Committee on Arrangements announced an entertainment for the evening. We have had some difficulty, he said, in placing you all in your respective rooms, but have done the best we could to make you comfortable. The rooms are all alike, all one size, and all furnished the same. The President of the National has a room as small as that of the least member. There has been no partiality shown. The hotel is not complete, and they have been working hard to overcome the difficulties, and have succeeded in getting this audience room in fairly good condition, by hanging curtains, etc. We have worked hard to entertain in as fitting a manner as possible this Association of honorable and dignified professional gentlemen from all over the land.

Dr. Jones of Ohio, Chairman of the Auditing Committee, made a favorable report on all bills presented up to this time. The report was accepted.

The Association took a recess until 2 o'clock in the afternoon.

FIRST DAY—AFTERNOON SESSION.

ADDRESS OF THE PRESIDENT.

The afternoon session was opened at 2 o'clock by the President, in the presentation of his annual address. It was listened to with rapt attention. (The address is published upon page 11 of this volume.—ED.)

At the close of the address, Dr. Ellingwood said: I desire to make a motion to the effect that the president's address, to which we have all listened with so much pleasure, be referred to the Special Committee which has in charge the secretary's report. The motion was seconded by Dr. Boskowitz and so ordered.

SECTION WORK.

SECTION OF THE PRACTICE OF MEDICINE.

There being no business demanding immediate attention the Association took up Section work. The President gave the chair to Dr. Wm. P. Best, Chairman of the Section on Practice. The first paper was read by Dr. J. A. McKlveen, entitled: "The Past, Present and Future of the Eclectic Practice."

The paper was discussed by Dr. Munn of Connecticut, Dr. Anderson, Dr. Truax of Georgia, Dr. Church of Michigan, Dr. Michner of Kansas, Dr. Smale of Arkansas.

The time limit was called on the last speaker. An objection was made both to the unwarrantable time occupied by individual speakers, and to the wandering character of their remarks. The Secretary, Dr. Ellingwood, read Article IX of the By-laws, which demands that the reading of each essay shall not consume more than fifteen minutes, and that no member shall speak in discussion, more than twice on the same subject and more than three minutes each time. The entire discussion is not to occupy more than fifteen minutes. The discussion was closed by the Essayist, Dr. McKlveen.

A CLINICAL CASE.

At the close of the discussion Dr. Harvell of Tennessee interrupted the Section by the following statement:

"Through the kindness of Dr. Merritt of Illinois, we have here a patient with a rare case—an extreme case of ichthyosis. The patient must leave at 5 o'clock, and it is desired to exhibit him to the convention. This comes properly under the section of Pediatrics, but I make a motion that the case be presented here and now."

The motion was seconded and carried.

The case was that of a boy who exhibited the symptoms of ichthyosis to a degree so extreme as to be repulsive.

Dr. Merritt presented the case with the following words:

DR. MERRITT: "To me, this is a case of special interest. The boy is eight years old. It is congenital with him. He is of German parentage. The family history is negative. There are three sisters older than he, and all are free in every way from the disease. He is completely covered with these scales. You all know the symptoms and history of ichthyosis better than I can give it. He has just had mumps and measles and scarlet fever. With the scarlet fever he had an extensive cellulitis."

DISCUSSION.

DR. MILES said: From what little experience I have had, I think I would try the X-ray on this case. I would begin with five minutes treatment twice each week, not treating a space larger than perhaps about six inches square at a time. If carefully done, I believe this would be beneficial. It would be worth trying. It would be necessary to go slowly. I have had two and one-half years' experience with the X-ray, and some cases of eczema have been completely cured. I should try it in this case simply as an experiment.

G. M. HITE said: I do not know anything of the treatment of ichthyosis, but would suggest, from the clinical aspect two therapeutic agents. I believe in treating every case according to the specific indications. The doctor has not told us why he would use the X-ray. He might give us some reason. I believe in basing all our therapeutic measures upon specific reasons. I would advise silica and calcium chloride and continue them unstintingly, right along. This is simply on indication, but I believe you will get results.

Dr. HENDERSON of Oregon, said: In regard to the X-ray, I have had similar cases and have used it two years and up to within the last six months. Lately I have gotten a high frequency attachment for my machine and am using electricity in all skin diseases of this class, and am getting much more pronounced results from this than from the X-ray, and it is less trouble and quicker. As to the why, there is a difference of opinion, I do not propose to offer a theory as to why. It is not necessary to discuss that here. My own experience is that the high frequency current is quicker, is easier to control, and the general results are better.

DR. WIGHTMAN: I wish to say a few words regarding the pathology. This is a congenital condition, but it occasionally

occurs after the birth of the child. The change is due to an increased proliferation of the epithelial cells, an increased tendency to hornification. The reason the X-ray is beneficial, and it is used in epithelioma with some success, is because the X-ray has a tendency to prohibit cell proliferation.

DR. PERCE of Cal.: I have never had an opportunity of thoroughly examining a case exactly like this, but I would add to what has been said of the X-ray by Dr. Miles. I would like also to add in relation to the statement made by Dr. Henderson, and I am sorry he did not go more fully into that matter of the high frequency current. The gentleman speaking before him has given a good idea of the pathology of ichthyosis and yet not exactly in my line of thinking. I think the X-ray applied in time will undoubtedly do good, and my judgment is that it would undoubtedly be good for this little patient. The X-ray has some influence in a chemical way. I think the normal salts of the body are changed in such a degree that elimination takes place and results beneficially. I believe we will find the normal salts of the body undergoing a change, and that this has a good deal to do with the condition of the skin in the application of the X-ray. I should like to see this patient put under the X-ray by a good manipulator, and have this case reported at some other session of the Association.

DR. WINTER: Are there any of the members here who have seen cases of ichthyosis treated with the X-ray? I have had under my observation within the past three years two cases of ichthyosis; one a woman approximately 30-35 years old; the other a young man, 16; both of them having been treated with the X-ray with negative results. I would like to hear from some one who has seen beneficial results from the X-ray in cases of this sort. The theory is all right, but I would like to know the actual results.

The Section of Practice now resumed its work, and the chairman, Dr. W. P. Best, read a paper on the "Specific Treatment of Pneumonia." This was at once followed by a paper on "Pneumonia and the Practice of Old," by Dr. Wohlgemuth, and this by one on the "Symptoms of Lobar Pneumonia in the Aged," by Prof. N. A. Graves of Chicago. The subject of pneumonia was then opened for discussion. (The discussion of each paper is

published with the papers in its proper place in this book.—Ed.)

The subject was discussed by Dr. Church, Dr. DuVall of Atlanta, Dr. Baird of Kansas, Dr. Wightman of Chicago, Dr. Henderson, Dr. Robertson, Dr. Munn, Dr. Ellingwood, Dr. Thomas, Dr. Sparrow, Dr. Herring, Dr. White, Dr. Hite, Dr. Perce, Dr. Best and Dr. Wilmeth.

"The Therapeutic Treatment of Appendicitis" was the next topic presented. This was the title of a paper by Dr. G. M. Hite of Nashville, Tenn.

The paper was discussed by Dr. Entz of Kansas, Dr. Wightman, Dr. Wohlgemuth and Dr. Robertson. The Section then rose and reported, and the President entertained a motion for recess until 8:30 on Wednesday morning.

FIRST DAY—EVENING SESSION.

The Missouri State Eclectic Medical Society tendered the National Association an entertainment in the evening which was opened in the auditorium, and adjourned after the addresses and music to the roof garden. The entertainment consisted of vocal and instrumental music and addresses. Dr. Mendel, President of the Missouri State Society delivered a very excellent address. The refreshments were served in the roof garden.

SECOND DAY SESSION.

The President called the Session to order at 8.45 A. M.

REPORT OF THE CREDENTIAL COMMITTEE.

The Committee, through Dr. Kennett, its secretary, reported a list of names of those who had applied for membership, and which had been posted as required. And they were elected to membership. (The complete list of new members will be found on page 462.—Ed.)

REMARKS.

DR. BOSKOWITZ, obtaining the floor, stated that there was an amendment to the constitution and by-laws which was to be brought before this Session of the National. And in order that all interested might know the time when it was to be brought up he would ask that a specific time be set and notice be now given of that time.

It was moved by Dr. McCann, and seconded by Dr. Boskowitz, that the consideration of this amendment be made the special order of business for 9 o'clock on Thursday morning. It was so ordered.

DR. ELLINGWOOD asked the privilege of the floor to call the attention of the Association to the fact that the World's Fair in 1893, in consideration of the exhibit made by the Eclectic Physicians of America had presented them with a beautiful bronze medal. The exhibit had been planned and largely executed by Prof. John M. Scudder, now deceased, and was in charge of the officers of the Eclectic Congress of the World's Congress Auxiliary. Dr. Ellingwood had found this medal among the archives of the National Association which had been turned over to him by the previous secretary. And, as he thought the attention of the Association had never been called to it, he deemed this World's Fair occasion the proper time to attract their attention to it. He exhibited the medal.

REPORT OF THE AUDITING COMMITTEE.

The following report was submitted:

We, the undersigned Auditing Committee have carefully examined the books of the treasurer and have checked the bills and vouchers and find the above named annual report correct.

B. K. JONES,
A. C. HAUSS,
JOHN K. SCUDDER.
Committee.

The report of the committee was adopted.

REPORT OF THE ADVISORY COMMITTEE.

The President called for a report from the Advisory Com-

mittee. The Chairman, Dr. Boskowitz, announced that the committee had organized and that Dr. Scudder had been made secretary. Dr. Sharp would report at this time for the committee. The Doctor reported as follows:

Your committee to whom was referred the resolutions in regard to the "History of Medicine," written by Dr. Alex. Wilder and published by Dr. S. B. Munn, after reading them carefully, and listening to arguments by Drs. Munn, Younkin and Russell, would respectfully report as follows:

That we believe Dr. Munn has done a service to the cause of Eclecticism in publishing the work; that we regret sincerely the financial loss it has been to him. Therefore, be it

Resolved, That we recommend our medical colleges to include it in the list of books recommended to students, and that we further recommend that the publishers of Eclectic journals be requested to give it in their journals the prominence that it so richly deserves, and thereby help its sale and universal use by practitioners and students of our schools; and further be it

Resolved, That should the Association publish a bulletin that a prominent notice be given it in the same.

(Signed) DR. E. G. SHARP.
For the Committee.

The report of the committee was adopted by the Association.

SESSION OF THE SECTION OF PEDIATRICS.

The President resigned the chair to Dr. W. P. Best, Chairman of this Section, and the Section was organized and the papers called. Dr. Rudd read a paper on Zymotic diseases, with reference to differential diagnosis. It was not discussed. Dr. George M. Hite read a paper on nervous reflexes in children. This was discussed by Dr. V. A. Baker, Dr. Munn, Dr. Perce, Dr. Henderson, Dr. Whitford and Dr. Wilmeth.

This was followed by a paper by Dr. M. H. Gage and one also by Dr. Paul Harvill on scarlet fever. These were discussed conjointly by Dr. Bushnell, Dr. Adolphus, Dr. Henderson, Dr. Rickard, Dr. Duvall, Dr. Johnson, Dr. McKee, Dr. Thomas, Dr. Tatman and Dr. H. K. Whitford.

The Section rose and reported.

SESSION OF THE SECTION OF SURGERY.

The Section of Surgery convened by special call in the double parlors of the Epworth Hotel, Wednesday, June 16th. Dr. E. Younkin of St. Louis, acted as chairman. He presented a paper on "The Suppurative Process," which was discussed by Drs. Krausi, L. E. Russell, Church, Herring, and Perce. This was followed by a paper by Dr. Shewman, on "The Treatment of Septic Wounds." This was discussed by Dr. Duvall, Dr. Robertson, Dr. Church and Dr. Holmes.

A child of Dr. Shaw's was brought before the Section for clinical examination. The condition was one of rachitis, exostosis, and a general weak physical condition. Dr. Younkin appointed a committee of three, consisting of Dr. Wightman, Dr. Alexander and Dr. Russell to carefully examine the patient and to determine upon the best course of treatment in his case.

DR. LEE STROUSE presented a paper on the "Carbolic Acid Plastic Dressing." The paper was not discussed.

DR. J. J. LINK of St. Louis, presented a paper on "Appendicitis," with a number of charts, illustrating various points considered. As the paper was long, a part only was read at this session. The Section taking a recess until 10:30 o'clock on the morning of Thursday.

RESUMPTION OF THE SECTION OF PRACTICE.

The Section of Practice not having completed its work, was again called. Dr. Felter read a paper on "Erysipelas."—This was discussed by Dr. Pickett, Dr. Whitford, Dr. Hite, Dr. Clayburg, Dr. Bement, Dr. Brockman and Dr. Felter. This was followed by a paper by Dr. V. A. Baker of Adrian, Mich., on "The Old and the New in Medicine." This was not discussed. The Section then rose and reported, and the Section of Pediatrics was recalled.

RESUMPTION OF THE SECTION OF PEDIATRICS.

The Chairman, Dr. Harvill, called for Dr. Felter, who read

a paper on "Danger Signals." The paper was discussed by Dr. Hammond, Dr. Truax, Dr. Goss, Dr. Porter, Dr. Felter and Dr. Hite. The Section rose and reported. A recess was then taken until 8:30 Thursday morning.

SESSION OF THE SECTION OF THE EAR AND EYE.

The Section of Ophthalmology and Otology was called to order in the smaller parlor of the Hotel Epworth, by Dr. M. E. Daniels, the vice-president, in the morning of Wednesday, June 15th. Dr. Foltz of Cincinnati, read an excellent paper on "Chronic Non-Suppurative Catarrh of the Middle Ear."

The paper was discussed by Drs. Winter, Johnson and Arnold. This was followed by a paper by Dr. Geo. W. Johnson, on "The Internal Use of Drugs in Eye Disease." This paper was discussed by Drs. Foltz, Winter and Harbert. Dr. M. E. Daniels submitted his paper on "Ophthalmia Neonatorum," by title. The subject in general was discussed by Drs. Winter, Storer, Ballington, Johnson, Mendel, Daniels and Harbert.

The Section rose and took a recess to meet on Thursday morning after the business session.

THIRD DAY SESSION.

The President called the session to order at 8:50.

REPORT OF THE CREDENTIAL COMMITTEE.

It was moved by Dr. McCann, of the committee, that all names that had been posted up to this time be elected to membership in the Association, as they were accepted and approved by the committee. It was so ordered.

SUBSTITUTION ON COMMITTEES.

Dr. Perce was appointed on the Committee on Medical Colleges in place of Dr. McLean who was absent, also Dr. N. A. Graves instead of Dr. E. J. Farnum. The name of Dr. A. P. Hauss was added to the Committee on Registration and Press.

INVITATIONS FOR 1905 SESSION.

The Secretary read invitations from the cities of Excelsior Springs, Mo.; Denver, Col.; Galveston, Tex.; Harrisburg, Pa.; Saratoga Springs, New York and others, to hold the next session in their town. The matter was referred to the Electoral College after the attractions of several cities were presented by members of the association in those places.

An invitation for the Association to visit the "Compton School for Children of Retarded Mentality" was accepted with thanks, and the time set for the afternoon of this day for those who desired to attend.

FURTHER REPORT OF THE ADVISORY COMMITTEE.

Dr. John K. Scudder, of the committee, made the following report, which upon motion and second was at once unanimously adopted.

The Advisory Committee reports favorably on the following resolution referred to us:

Resolved, That a special legislative committee be appointed to report at the next annual session, such legislation by amendment to or revision of National, State or Local society constitutions or laws or otherwise, as may be deemed desirable or necessary to serve the best interests of the Eclectic medical profession, and to unify National, State and Local societies.

(Signed) GEO. BOSKOWITZ, N. Y., *Chairman.*
JOHN N. SCUDDER, O., *Chairman.*

REPORT OF THE COMMITTEE ON REGISTRATION.

The Committee on Registration reported that up to the present time there were 414 physicians registered and 252 visitors.

AFFILIATION OF THE INDIAN TERRITORY SOCIETY.

Dr. J. F. Son, Secretary of the Eclectic Medical Society of the Indian Territory, rose, and in behalf of that association, asked for affiliation with the National Association. It was moved that the matter be referred to the Committee on Credentials. Seconded and so ordered.

CONSIDERATION OF THE AMENDMENT TO THE BY-LAWS.

DR. MCCANN: Yesterday the matter of the amendment to the constitution or by-laws was made a special order of business for 9 o'clock this morning. As it is now 9 o'clock I move that the proposed amendment be taken up at once. It was seconded and so ordered.

The following amendment to Section 1 of Article VII of the By-Laws was then read by the secretary: "In affairs of medical colleges a permanent committee of seven members shall be appointed, three of whom are connected with medical colleges and four of whom are not in any way connected with any medical college, whose duty it shall be to consider such contingent matters as may arise concerning the status of medical institutions, and to whom shall be referred all complaints and disputes of matters relating to medical colleges without debate."

DR. HENDERSON, of Washington: I move the adoption of the amendment. The motion was seconded and opened for discussion.

DR. HAUSS:—As the author of this amendment I think we should have it discussed. This amendment is one that ought to interest every member. As it is now the Association has nothing to say in regard to the status of medical colleges. I think the future standing of our schools depends upon the standing of our colleges, and that we all should have a voice in college matters.

DR. J. K. SCUDDER: I wish to take issue with the gentleman who has proposed this amendment. The Association has everything to say concerning the status of our colleges. This committee has been regularly appointed every year, and has held regular meetings, and any one can bring complaints before this committee, which is formed of one representative from each college. A doctor would not go before a committee of lawyers to take a medical examination, and why should the colleges go to any but college men to be examined?

DR. HENDERSON: What is the object of the resolution? I moved its adoption to bring out the discussion, but I shall probably vote against it.

DR. HAUSS: As long as I have been a member of the Association I have never heard anything of that which was going on before the college committee. I do not think any other member has heard anything. If there is any irregularity we would

like to know of it. It is simply to put us in touch with what is being done.

DR. BOSKOWITZ: I think the last speaker gives to the membership generally an absolutely wrong impression of what has been the course of this Association. I have been a member of this Association as long as he has—perhaps a little longer. I have been regular in my attendance at the meetings of this Association. There has hardly been a year that it has not heard something in regard to the colleges in difficulties that have arisen. It is a fact that in all organizations where it is necessary to legislate for the body general every detail of the matter cannot come before the whole body; there must be committees appointed for the purpose of listening to the questions that may come up, but the committee has no absolute power. What is finally done is done by the sanction of this entire Association. There is no committee that can control a matter without the endorsement of this body. They investigate and they report to this body as a whole, and it then becomes the duty of this body to accept or reject their report, and what more can you ask? From what Dr. Hauss has said it would seem that this committee has a certain power to smother things, and that you were not going to get something that belongs to you. I think this organization as a whole knows how to control its business, and if it wants to accept or reject the report of a committee it can do it. This Association has the power and this committee can certainly do nothing without its sanction. The original by-laws read that each college in this organization shall have a member on this committee, and that matters pertaining to medical colleges shall be left to them. The amendment simply says that in place of putting this matter in the hands of the people connected with the colleges there shall be three college men and four who are non-college men. What the purpose can be I positively cannot understand. It is a fact that each of the states have individual laws and regulations for the colleges and institutions within the state, and I claim that in the majority of instances the men who understand these laws best, who know their details and their application, are the men who are connected with these colleges. It is a part and parcel of their business to keep posted, and therefore the best man to judge in regard to matters to be investigated concerning the colleges and to report to this Association are the college men. I hope that this amendment will not prevail.

DR. E. H. STEVENSON: I had something to say last year on this matter. I disagree with my good friend Dr. Boskowitz. I am sure we have nothing at heart except the good of Eclectic medicine. My views are based on experience I have had with students in medical colleges in the past few years. I cannot see where the committee as proposed will damage these colleges in the least. Certainly the men who send students to the colleges every year know what kind of physicians these colleges are producing. These students come back to the preceptor and ask about this, that and the other, that they expected to find and that they did not find. If you will make your committee of college men and from the ranks of the profession also which are non-college men, it will do no harm to this committee or to the colleges, and they will appreciate this after a while as being a source of facts and information that is not otherwise obtained. It is known, perhaps, that some of our colleges are not exactly up to what is expected of them. The student goes away, and he does not tell the college authorities where the deficiencies are, but he goes back to his preceptor with his complaints. If you would get representatives from these preceptors you would learn of these objections that which you do not now learn. We do not propose to do you any harm. You need these complaints. We do want these schools of ours occupying buildings and having equipment that our students are not ashamed of when they ask their associates to come and see them from other colleges. I like all the colleges of the Eclectic school. I know we have good schools and have produced good men, and produce good men today, but some of our schools might be made more effective, with better equipment and larger laboratories. I do not understand that the non-college men want to run the colleges, but we do want these colleges to come up to the best in the country.

DR. BLOYER: Is it a part of the duty of this committee to furnish these colleges with great brick buildings? If this committee is going to furnish fine buildings, I will vote for it.

DR. STEVENSON: Without hesitation I will say it may be within the range of possibilities. It is evident that somewhere, some way, some how, somebody has got to do it if it is done, and I don't know how philanthropic some of our hearts may be, and we may help along with money some time, Professor Bloyer. I hope the amendment will be adopted. If it proves detrimental to somebody, it can be wiped out. I hope it will prevail.

DR. DUVALL: As a member of one of our colleges with some five or six years' experience, I have found that it is easy to find people who know how to run a medical college outside of the college—much easier than it is within. We have students who are not there three months until they know how to run a medical college, and it is not usually the man who stands the best examinations in his classes. It is not usually the man who appreciates Eclecticism either. I would be glad to have fine colleges like some, under the protection of a great university and receive endowments. We would be glad to have fine colleges, but we prefer our faculties to the fine colleges. It is the college *men* who have made the sacrifices. It is not those who have not been connected with them. I have known men who have spent their private fortunes in trying to build up our colleges. Who of you who have not belonged to these colleges have spent $100? I can point to men who have spent thousands. The lecture fees do not compensate. Look at the time they devote. We would be glad to get these endowments, and we will by and by. In the meantime, we can only do the best we can, and each medical college is doing all it can. Then to have a committee come and talk, and suggest things, when the college men must furnish all the money to carry out the suggestions, seems to me to be most absurd. As for the Association not hearing of certain irregularities, that will not hold. If there is anything going wrong it is not long in coming to the attention of the colleges of our confederation and the college committee. It is then corrected without publicity. A committee of outsiders will spread about that which will be detrimental to the colleges and to Eclecticism and to this Association. We have been in harmony because we have carefully weighed each charge and adjusted it in a way as satisfactory as it could possibly be done.

DR. BUSHNELL: I am a college man and have been a college man ever since I entered college; and being a college man, I am still in favor of this amendment, because the men who send the students to the colleges are the men who should have a voice in saying what they want, and it seems to me they have a right to be heard on such a committee as this. It seems strange there should be any question of right or wrong as to whether this Association at large, or its membership at large, should have a representation on this committee. They do not ask to run the in-

stitution, but to see how it is run. I say the Association should have a voice in this matter.

DR. HAMLIN: I had not intended to take part in this, but some of the remarks made strike me personally. In reading the amendment I notice that it makes the majority of the committee from the laity, and the colleges are in the minority. I do not understand why that should be. I do not understand why the men who make the colleges and must maintain them and do all the work should be in the minority and be controlled by men who are not in the colleges. The suggestion has been made that we do not have the buildings and equipments that our rival colleges have; the reason is, as I understand, because so many of our Eclectic physicians send their sons to those institutions that have large buildings and little teaching. There are Eclectic physicians in this house today who are sending their sons and students to allopathic colleges, and who stand on this floor and make light of the Eclectic medical colleges. We have as good colleges as these United States can offer. Our students come out, and I am happy to say, the record they make is not to be ashamed of, compared with Rush or any other college. It is not the equipment; it is not the fine buildings of stone and mortar and brick, but *what you put into the student's head.* We do claim that the Eclectic institutions in this country are second to none in teaching qualities. If our men want to send their sons where they will have popularity, let them do so, but don't let them come here now and ask to control our Eclectic medical colleges.

DR. GOSS of Georgia: I am a teacher in a medical college. I am not only a teacher in a medical college, but I taught in an old-fashioned country school before that, and I never did think it was right for the layman and pupils to talk to the teacher about running the school. The men connected with teaching know better how to do it than those not so connected. The colleges know best how to deal with their own issues and will know what is best, and they are not likely to tell tales out of school. I think these matters had better be left where they are. My little school in Georgia was the first in the south to adopt the four years' course. We have come through it and had a better class than we have ever had before in several years. I do not say this boastfully, but with pride for Eclecticism, and not myself individually.

DR. ROBERTSON: My hope is that the Eclectic colleges may be saved and may go on for many years. I am a college man. I am going to make a statement that is personal, that is that I have perhaps as much money invested in colleges as any other one man in the United States, and I am in favor of this resolution for the same reason that I am not in favor of a man being tried by himself.

DR. GOSS: He ought to be tried by his peers.

DR. ROBERTSON: The question is: Does anybody in the United States know anything about these medical colleges besides those who are in the cities and run them? Will the man do better when watched by outsiders than if not watched? These are questions for the country people to decide. If you don't send the students to our colleges, why don't you? If you have something to say on this committee, you will know something of the hardships of the medical college man and you will send your students to him. It is not altogether the medical college men that make the medical colleges. It is the students. Give me 500 students, and I will get the best faculty in the United States because I will have $50,000 with which to buy that faculty. You can't get the good men to come unless you have the money. This resolution should prevail. I have had a personal resolution. We are as well represented as any college, and if this prevails the member from our college will not be on it. I would rather have all seven from the country. Some State boards say they won't have a college man on the board. They are liable to legislate in favor of themselves. What is the duty of this committee? If to regulate the college and State board of health, regulate it. To-day we are having a confederation of State boards of health. This is so it will be uniform. This is the last time I will talk about this. The majority rules, but never come back to me and say why don't you do this and that and have better colleges. If you want better colleges it is in your power to get them. You have money, lots of you, and if you are not satisfied dig down into your pockets and build a college worth $200,000. That is what you should do.

DR. HENDERSON: I wish to say first I am not connected with a medical college. The speakers have nearly all been college men. I believe every man guilty of a crime should be tried by his peers, and not by men who do not know the intricacies of the question. We should have this question of medical colleges

left with men who are conversant with all the intricacies of the management of medical colleges. We had better be attending to scientific matters that will assist us in curing our patients than in attending to the washing of dirty linen. I am not a medical college man, but I will vote against this resolution.

DR. JOHNSON: I am not a college man and am proud to make that statement. All this calls to mind a case under my observation. An old woman stopped in my office and said, "Doctor, my husband is a man who has many bad habits, and I don't know what to do. I would like to improve him, and I am getting to that point where something will have to be done." I said, "Madam, if you should change and decide to get another husband, you will find he will have faults and bad habits also. I think the best thing to do is to hold on to your present husband." We have got a committee consisting of men from the different medical colleges, who are able, and upright and scientific men, who will do all they believe right to do for the best interests of this Association and our school. We have confidence in our men and I believe this Association will turn this amendment down as it should be. To adopt that amendment would be to cripple the interests of this Association and our colleges. I feel that we have accomplished a great deal more than the dominant school of medicine, and more in the past three years than in five years prior to that time. I am encouraged. I am an Eclectic and believe in Eclecticism, and believe in our colleges, and I hope this amendment will be voted down.

DR. SHAFER: I, as Dr. Johnson, am not a college man. I believe, as a good business man, that the men ought to control what they own. They own the colleges and they ought to control them, and I believe they will take care of the best interests of the Eclectic medical profession and the Association.

The question was then called. The secretary again read the amendment.

A vote was taken and the amendment was lost. The nays prevailing.

THE PRESIDENT then spoke as follows: After it was decided to hold this meeting in St. Louis, the Executive Committee met here and decided as to the time of holding this meeting. The constitution provides for a certain time, and also that the executive committee can change the time and place. As this was the World's Fair year, we decided we could have a more profitable

meeting by giving everybody an opportunity to visit the Fair in the afternoon, and so the Executive Committee, by authority vested in it by the constitution, decided we would hold a five days' session. In order to get the rate we were expecting here at this hotel, we had to make a deposit of $100 and guarantee that we would take 150 rooms for five days. If 150 persons do not stay five days there is not a man in the Association gets the reduced rate of $1.00 per day.

The by-laws also state that on the third day the various States shall elect delegates to the electoral college. The various States will elect their delegates today to the electoral college next Saturday morning.

DR. BOSKOWITZ: I move that the action of the executive committee be approved, and that unanimous consent be given for holding this election Saturday morning. Seconded and ordered.

A CHANGE IN THE CONSTITUTION AND BY-LAWS.

DR. ELLINGWOOD, obtaining the floor said: The President has brought up this matter just when it was upon my own mind. In order to prevent any future complications and to simplify the work of the Executive Committee when it may seem imperative to make a change in the time or length of the session, I ask the unanimous consent of the Association to change the reading of certain words in Article VII of the Constitution, the last clause of which now reads: "The period of holding the meeting shall be three days." I ask that it be changed to read "At least three days." The words "at least" being inserted. It was moved and seconded that the change be made, and unanimously carried. Dr. Ellingwood continued: "The first clause of Section 1, Article VI of the By-Laws now reads, "At every annual meeting upon the third day of the session there shall be an Electoral Committee chosen." I ask that the words "third day" be changed to read "last day." It was moved and seconded that the change be made, and unanimously carried.

RESUMPTION OF SECTION WORK.

Section work was resumed and the Section of Obstetrics was called in the auditorium with Dr. B. J. Alexander, Chairman, and Dr. Wintermute, Secretary.

Dr. W. O. C. Harding read a paper on "Some Obstetrical Don'ts." There was no discussion. Dr. Lee Strouse read a paper on "Care of the Patient After Delivery." This was discussed by

Drs. Richard, Teague, Nesbit, Pritchett, Bement, Wilmeth and Bushnell. Dr. A. W. Porter read a paper on "Puerperal Eclampsia." This was discussed by Drs. Goss, Clayburg, Pickett, Michner, Bement, Bushnell, Shafer, Rusk, Tucker, Keys, Wintermute, Whitford and Schussler. Dr. Porter closed the discussion.

Dr. E. B. Shewman read a paper on "Practical Obstetrics." This was discussed by Drs. Perce, Pickett, Clayburg, McIntyre and Foltz.

Dr. S. M. Sherman's paper on "Chloroform in Labor" was next listened to. It was discussed by Drs. Crawford, Shewman, Goss, Wintermute, Alexander.

This closed the Obstetrical Section which rose and reported. The Session then took a recess until 9 o'clock Friday morning.

FINAL SESSION, SECTION OF THE EAR AND EYE.

Dr. Daniels called the session to order on this morning at 10:30 o'clock in the smaller parlor of the hotel. Dr. Harbert of Bellefontaine, O., presented his paper on "Corneal Ulceration," by synopsis. The paper was discussed by Drs. Foltz, Sutler, Winter, Johnson and Arnold. With the close of the discussion, the Section arose and reported, all agreeing that it was one of the most successful and profitable sessions they had ever attended.

SESSION OF THE SECTION OF SURGERY.

Thursday morning, June 16th, the Section of Surgery resumed work at 10:30 o'clock in the double parlors of the hotel. A clinic was presented by Drs. Baumer and Link. It was the case of a girl, seventeen years of age, suffering from torticollis, the result of smallpox. The difficulty set in with swelling of the lymphatic glands of the neck, four weeks after having apparently recovered from smallpox, last winter. Dr. O. H. Rohde examined the case, and advised simple massage, with hygenic and simple physical treatment. He also advised as a medicinal tonic, tag alder and phytolacca, in five drop doses, four times a day, and that the cervical area and parotid glands be painted with the same mixture. He advised an elixir of stillingia compound, with free use of saline laxatives, also chionanthus, also the use of an embrocation of olive oil, capsicum and ammonia, to aid the capillary circulation.

Dr. Church stated that in spastic contraction he advised surgical treatment. Dr. Shafer approved this course, and said that nerve stretching, as in *tic douloureux,* seemed necessary. He advised a vibrator in the case. Dr. Younkin indorsed the simple treatment of Dr. Rohde, and also advised a vibrator treatment and electricity.

The reading of Dr. Link's paper was resumed. He was tendered a vote of thanks for his very able and complete paper. Dr. F. L. Wilmeth presented a paper on "The Very Necessary Treatment of Cellulitis."

Dr. O. B. Young read a paper on the same subject. Dr. Giles Hathcock presented a paper entitled "Does Erichsen's Disease Exist or Does it Not?" The Section took a recess to meet on Friday morning at 10:30.

SECTION OF DISEASES OF THE NOSE AND THROAT.

The Section on Diseases of the Nose and Throat was called to order on this morning at 11:30 in the smaller parlor of the hotel, by the Vice-President, Dr. Kent O. Foltz of Cincinnati, O. Dr. J. P. Harbert acted as secretary.

Dr. Harbert read a paper on "Turbinotomy." The paper was discussed by Dr. Winter, Dr. Johnson, Dr. Daniels, Dr. Foltz and Dr. Storer. The Section arose and reported.

FOURTH DAY SESSION.

The Association was called to order at 9:10 a. m.

FURTHER REPORT OF THE ADVISORY COMMITTEE.

This committee, by Dr. Boskowitz, its chairman, made the following report:

Your committee desires to report on Dr. Ellingwood's pertinent resolution concerning pneumonia as follows:

Resolved, That the Society recognizes the importance of this resolution, and believe in the superiority of Eclectic treatment in

this dreaded affliction. We therefore request the membership of this Society, and of our physicians generally, to keep a careful record of their cases, and to send such statistics to our secretary, that he may represent them in the bulletins to be issued by this Society. And be it further

Resolved, That the Association requests the editors and publishers of Eclectic journals to give to this subject special prominence in their publications, and that when consistent with the dignity of our profession, they answer through the public press such articles and comments as declare the uselessness of medication and that a mortality of from 30 to 50 per cent is unavoidable.

The report was unanimously adopted.

REPORT OF THE COMMITTEE ON NECROLOGY.

The Committee on Necrology reported as follows:

WHEREAS, Death is continually invading our ranks and removing from our midst those who have been our standard bearers and who have borne the hardships from which we are exempt, and WHEREAS, During the past year our profession has lost respected members in the persons of Dr. Geo. W. King of King's Station, N. Y., who passed away at the ripe age of 76 years with fifty years of active practice, and who was a prominent member and ex-president of the N. Y. State Society; also Dr. Isaiah Brothers of Youngstown, Ohio, who died May 1, 1903, Dr. W. O. Buckland of Oakland, Cal., who died Dec. 1, 1903, Dr. J. W. Hamilton of San Francisco, Cal., Wm. R. Hayden of Bedford Springs, Mass., who died April 29, 1903, Dr. J. W. Huckabee of Atlanta, Ga., who died Dec. 27, 1903, Dr. C. E. Pierce of Little Rock, Ark., who died April 19, 1903, and Dr. R. S. Trask, Hastings, Mich., who died March 22, 1904.

Resolved, That while we bow in recognition of that power that doeth all things for the best, we also recognize that our cause has lost some of its most earnest workers, and we extend our sympathy and condolence to their families. And further be it *Resolved,* That a page be set apart in the "Transactions" to the memory of these deceased members, and that a copy of these resolutions be sent to their respective families.

E. G. SHARP, M. D.,
F. M. BEALS, M. D.,
Committee.

This report was also unanimously adopted.

Dr. Ellingwood, obtaining the privilege of the floor, said: In addition to these names, Eclecticism has lost a number by death this year, and we might add perhaps twelve or fifteen names of men who were known to us in State association work, but men who have not always identified themselves with this National organization. A man known to many of you eight or ten years ago, was Prof. John Tascher, who was once very active in this organization, but on account of his health had allowed his membership to lapse. He died a few months ago from Bright's disease. He had tuberculosis and went to Albuquerque and overcame it, but subsequently he succumbed to Bright's disease. Dr. Tascher was one of our best men and I am sure I express the sentiment of this Association when I say we most deeply regret this loss.

NOTICE OF A PROPOSED AMENDMENT TO THE BY-LAWS.

Dr. McCann, obtaining the floor, stated that in his opinion, there should be a change in the constitution concerning the membership fee and annual dues, as the dues were now so high that many could not retain their membership. He said he would present the following amendment for adoption or rejection next year.

Notice is hereby given that the following amendment to Article II, Sec. 1 of the By-Laws is offered. When amended it shall read as follows:

"Every person duly elected as a permanent member of this Association shall complete such membership by paying an initiation fee of ten dollars. He shall also report any change of residence annually to the secretary within one month from the time of holding the annual meeting; and shall likewise after the first year pay an annual due of two dollars, and after twenty years of continuous annual payments such member shall be exempted from further payment of annual dues. Worthy members and former presidents of this Association, can, upon resolution adopted at any meeting by a majority vote of not less than two-thirds of all the members present, be exempted from the provisions of this section, except so far as relates to the reporting of name and residence, as aforesaid, and such members shall be designated, Exempt Members,"

And after the adoption of this by-law all members in arrearage two or more years on past back dues shall be reinstated for the sum of five dollars.

It was moved that the amendment be laid on the table. Seconded by Boskowitz.

DR. WINTER: An amendment cannot be laid on the table.

DR. BOSKOWITZ: Anything can be laid on the table.

PRESIDENT: I understand that any one can offer an amendment to the constitution and by-laws and it must lay over for a year without discussion. Any one can offer an amendment, but it must lay over for a year without discussion. I hardly see how it can be laid on the table. Dr. Boskowitz withdrew his second and the motion to lay on the table was also withdrawn.

REPORT OF THE COMMITTEE ON THE SECRETARY'S REPORT.

Dr. Boskowitz for the committee presented the following report:

Your committee to whom was referred the report of the secretary, desire to present the following:

Resolved, That this Association recognizes the great good that has been accomplished by the issuing of the National Association Bulletins, and they recommend that at least two be issued each year.

Resolved, That the secretary be requested to continue to act as organizer and visit the meetings of the State societies as may be selected by the executive committee, and that a sum not to exceed $200 be set aside for that purpose.

Resolved, That we shall consider it our duty to use the public press when occasion warrants, to inform the people of our belief and confidence in the virtue of our Materia Medica and the success that universally follows the administration of our remedies.

Resolved, That we hereby record our appreciation of the fine services that the secretary has rendered this organization, and that we recommend that the sum of $400 be paid to him.

REPORT OF THE COMMITTEE ON LEGISLATION.

The Committee on Legislation presented the following report:

The Committee on Medical Legislation met at 12 M., Chairman Krausi presiding. A general discussion on medical legis-

lation was indulged in by Drs. Henderson of Ore., Stephenson of Ark., Michner of Kan., Downs of Tex., Wagner of Ark., Johnson of Tex., Son of I. T., Robertson of Ill., and Goss of Ga. The following resolution was adopted by the committee:

Resolved, That we endorse and recommend interstate reciprocity in recognition of certificates or licenses of the various State boards of medical examiners.

(Signed) W. J. KRAUSI, M. D., *Chairman.*
J. P. HARVILL, M. D., *Sec.*

The report was adopted.

Dr. Wilmeth,, for the Advisory Committee, reported that no action had been taken on a resolution handed them concerning members in arrears for dues, as it was already provided for by the by-laws.

DISCUSSION OF THE PRESS COMMITTEE.

Dr. Geo. W. Johnson moved that the stenographer be instructed to write up a report of our session for the city papers as nothing had appeared in the papers concerning our meeting.

Dr. Robertson of the Press Committee, explained that he had been very diligent in trying to get a report into the papers but that no attention had been paid to his requests as the World's Fair news occupied so much of their time and space. "Give us something sensational," they say. "If someone would throw an ink bottle at the President's head they would publish that."

DR. BOSKOWITZ said: I am rather glad there are no representatives of the press present at this time, for I don't think any association will get any notice in the public press by starting in to throw mud at the press and to make the statement here that they won't print anything except sensational stuff. I don't believe that statement is correct. I believe that the public press of St. Louis will treat us fairly and squarely as will the press in other cities if properly approached. I believe if the plan suggested by Dr. Johnson were carried out, which as I understand it is that there shall be a concise report handed in by the stenographer under the direction of the secretary, and then somebody be appointed to visit the papers and hand it in with the request that it be published, and I believe every single paper in St. Louis approached that way will publish our reports.

After considerable further discussion it was ordered that the corresponding secretary be instructed to prepare each day a concise report for the press.

Upon request of the Association, Dr. Wintermute read before the entire Association a paper upon the "Hygiene of Pregnancy." This was discussed by Dr. Church, Dr. Goss and Dr. Cowen.

SESSION OF THE SECTION OF MATERIA MEDICA.

The Section of Materia Medica then resumed its work with Dr. H. W. Felter as chairman. Dr. Kent O. Foltz read a paper on "Phytolacca Decandra," which was discussed by Drs. Best, Gemmill, Hamlin, Baker, Yost and Sherman.

This was followed by a paper by Dr. Best on "Apocynum." This was discussed by Drs. Krause, Sherman, Kinnett, Welty, Wohlgemuth, Winter, Shafer, Schussler, Keys and Henderson.

Dr. Boskowitz followed with a paper "The Extraordinary Use of Lobelia." This was discussed by Drs. Henderson, Pickett, Crawford, Wilmeth, Thomas, Krausi.

The Section closed with a paper by Dr. Florence Tippet Truax on the "A B C of Eclectic Medicine, Aconite, Belladonna and Capsicum." The discussion was conducted by Drs. Wohlgemuth, Perce, Truax and Lindberg. The Section arose and reported and a recess was then taken until Saturday morning, the fifth day, at 8:30.

FINAL SESSION OF THE SECTION OF SURGERY.

Friday morning, June 17th. The Section of Surgery reconvened in the double parlors of the hotel at 10:30. Dr. H. H. Brockman of Eldon, Mo., occupied the chair, Dr. Younkin having been called away. A paper by Dr. E. H. Stevenson, on "The Medical and Surgical Treatment of Tetanus" was read, also one by E. B. Shewman, on "The Treatment of Tetanus"was read, also one by E.B.Shewman on "The Treatment of Septic Wounds." The following papers were presented by title: Displacement of the Uterus Complicating Labor, Wm. B. Church, M. D., Holland,

Mich. Periproctitis and Ischio-Rectal Abscess, A. F. Stevens, M. D., St. Louis, Mo. Ruptured Ureter, J. M. Wells, Vanceburg, Ky. Gun Shot Wounds of the Extremities, J. C. Mitchell, M. D., Louisville, Ky. Fracture of the Superior Maxillary, W. W. Wheat, M. D., Mecca, Ind. Abscess, A. W. Porter, M. D., Loogootee, Ind. The Dangers and Benefits of Modern Surgery, W. N. Holmes, Nashville, Tenn.

No further business presenting, the Section arose and reported.

O. H. ROHDE, M. D., *Secretary.*

FIFTH DAY SESSION.

The Session was called to order by the president at 8:35.

The President named as a special committee to report at the next meeting, in compliance with the resolution adopted from the Advisory Committee, for a special committee to determine upon constitutional changes of State and Local Societies, to further the unification of all societies, as follows:

Drs. G. W. Boskowitz, J. K. Scudder, N. A. Graves, W. W. Johnson, C. G. Winter.

REPORT OF THE CREDENTIAL COMMITTEE.

Dr. Kinnett said: The Committee on Credentials has this morning accepted two names that have not been posted, C. M. Weldon and T. J. Acton. I move that they be accepted and elected to membership. The motion prevailed.

Dr. Kinnett said further: "Yesterday or the day before, the Indian Territory Society applied for recognition and it was referred to the Committee on Credentials. We have no authority to act on this application, and we refer it back to the Association for their action.

AFFILIATION OF INDIAN TERRITORY SOCIETY.

Dr. Ellingwood moved that the Eclectic Medical Society of Indian Territory be admitted to affiliation with this Association. The motion was seconded, and it was so ordered.

REPORT OF THE CONFEDERATION OF ECLECTIC MEDICAL COLLEGES.

Dr. John K. Scudder presented the following report from the college confederation, and moved its adoption.

"The National Confederation of Eclectic Medical Colleges held its annual meeting yesterday. In pursuance to the original resolution of its organization, as an auxiliary body, we beg leave to report that we have examined the standing of the Kansas City Eclectic Medical University of Kansas City, Mo., and have admitted this college to membership, conditional on the discontinuance of its night courses of instruction.

(Signed) JOHN K. SCUDDER, M. D., *Secretary.*

The report was adopted.

REPORT OF THE COMMITTEE ON ORGANIZATION AND STATUS.

Dr. Harbert, for the Committee on Organization, made the following report:

"The Committee on Organization and Status has held two informal but very interesting sessions. At these sessions the condition of Eclecticism in the States was reported upon and the necessity for compact organization thoroughly discussed and the best methods for completing such organization were considered.

Inasmuch as the Advisory Committee has presented a resolution for the appointment of a Committee on Unification, it was decided to ask that committee to keep the members of the Committee on Organization and Status informed as to their action, that each member should be prepared to act intelligently upon their suggestions at the next session of the National.

The following is the resolution adopted by the Committee on Organization and Status:

Resolved, That the President of the National Eclectic Medical Association direct the Special Legislative Committee (subsequently named the Committee on Unification) to send a copy of their recommendations to each State Secretary, and member of the Committee on Organization, previous to the next session of the National Eclectic Medical Association, as soon as practicable after the action is taken.

Respectfully submitted,

FINLEY ELLINGWOOD, *Chairman.*

MARQUIS E. DANIEL, *Secretary.*

The report of the committee was adopted.

DR. BOSKOWITZ: Unless we decide upon the name of these committees there will be confusion next year. You have one to unify State Societies. I would suggest that the committee appointed by the President this morning be officially called the Committee on Unification. Moved, seconded and so ordered.

It was moved that the report of the Advisory Committee as a whole be adopted. Seconded and so ordered.

CONSIDERATION OF THE MATTER OF DR. JOHN DILL ROBERTSON.

DR. GEO. W. JOHNSON, obtaining recognition from the President, said: I rise to a question of privilege. There has a matter come to the notice of this Association this morning which deserves its consideration at this time. I refer to an article in one of the St. Louis daily papers of yesterday, at the head of which appears the picture of Dr. John Dill Robertson. I feel that the appearance of that article in this paper has done our cause a great injury, and I feel that we as an Association, as honest men, should consider this matter at this time. It is not a question of whether we feel that a certain thing is right, or some other man feels it is right, but I personally think and feel that no man should make use of this Association to further his personal interests, whether they be right or wrong, and gentlemen, this is a serious matter and one that should be considered at this time. The article referred to, appears with the doctor's picture, in reference to bathing, etc.

DR. BOSKOWITZ: I move that the Association be resolved into a Committee of the Whole, and that this subject be discussed and that the action of the committee be referred back to the Society for approval. The motion was seconded and so ordered.

After the article in the paper was read by Dr. Daniel of Texas, and discussed at some length, Dr. Perce of California, presented the following resolution:

Resolved, That it is the sense of this committee that the action of Dr. John Dill Robertson in using the National Eclectic Medical Association for the purpose of advertising through the public press his own peculiar ideas, be condemned, and that he be asked to withdraw from membership in this Association for so doing.

The resolution was seconded by Dr. Marquis E. Daniel of Texas. The matter was then thoroughly discussed. Dr. Geo. W. Boskowitz subsequently offered the following as a substitute resolution:

Resolved, That this committee express its condemnation of the methods adopted by Dr. John Dill Robertson in the newspaper article, and that he be censured by this Association, and that his name be omitted from appointment on any committee for one year.

A call for the previous question was then made, and for a division of Dr. Perce's resolution. On motion this was finally agreed upon. The chairman called for a vote on the motion that Dr. Robertson receive the censure of the Association for his conduct. The ayes and nays were called for. The vote was taken and the president declared in favor of the affirmative. A vote was then taken by the same method on that part of the resolution which declared that Dr. Robertson be asked to withdraw from membership from the Association, and the president decided the vote in favor of the negative, and it was so declared. The Committee of the Whole was then dismissed and reported as above to the Association, and the report was accepted.

REPORT OF THE COMMITTEE ON RESOLUTIONS.

The Committee on Resolutions presented the following; Be it

Resolved, That this Association hereby express its due appreciation of the most cordial welcome accorded it by the mayor and president of the City Council of St. Louis. Be it

Resolved, That the untiring efforts made by our present officers are duly appreciated, and that we recognize in this most successful meeting a fitting culmination of their careful management. Be it

Resolved, That the thanks and gratitude of this Association are due the local Committee of Arrangements for the successful and enjoyable entertainment of this body while in St. Louis, and that the efforts of Dr. H. H. Helbing and Dr. Hamlin deserve special consideration. Be it

Resolved, That we recognize the untiring efforts of Dr.

W. E. Bloyer, who has long served as Chairman of our Committee on Credentials, and jealously guarded the interests and welfare of this Association. Be it

Resolved, That the management of the Hotel Epworth deserve our unstinted praise and gratitude for their efforts to accord us all the comforts and advantages within their power, and for the use of their assembly room and parlors for our sessions.

(Signed) W. P. BEST,
N. A. GRAVES,
Committee.

The report was adopted.

CONCERNING MEDICAL REGULATIONS IN THE INDIAN TERRITORY.

The following resolution was presented by Dr. Son, Secretary of the Indian Territory Eclectic Medical Society, and was at once adopted by the Association:

Resolved, That this Association shall petition the President of the United States as follows:

That inasmuch as by a law of Congress, recently enacted, whereby the practice of medicine in the Indian Territory is regulated and the judges of the United States Courts are given the power to appoint the boards of medical examiners for the different districts, and

WHEREAS, The law designates that such boards shall be composed of medical men of learning and skill who are recognized by the different National Medical Associations, and

WHEREAS, It is known that one school of medicine only is recognized by the judges in said appointments, therefore be it

Resolved, That the President be asked to use his influence in such a manner as to give justice to all schools of medicine and a liberal construction of the law.

COMMITTEE ON PRESS AND REGISTRATION.

DR. HALBERT suggested that the Committee on Press and Registration be divided and made into two committees.

DR. ROBERTSON moved that the Press Committee be a separate committee and be made permanent. The motion was seconded and adopted.

CONVENTION OF THE ELECTORAL COLLEGE.

The hour fixed by the constitution and by-laws for the convening of the Electoral College for the election of officers for the ensuing year having arrived, other business was temporarily suspended. The secretary called the roll of States and colleges for representation. The following responded and were appointed members of the Electoral College:

New York, G. W. King, M. D., C. W. Brandenburg, M. D.; Pennsylvania, E. J. Dech, M. D., J. W. White, M. D.; West Virginia, W. L. Werner, M. D., Lucian N. Yost, M. D.; Georgia, Jno. H. Goss, M. D., Giles Hathcock; Louisiana, A. C. Wilkins, M. D.; Michigan, V. A. Baker, M. D., E. W. Cosford, M. D.; Ohio, B. K. Jones, M. D., J. Scudder Hull; Indiana, Morse Herrod, M. D., J. D. McCann, M. D.; Illinois, W. A. Graves, M. D., H. S. Tucker, M. D.; Kentucky, R. S. Killough, M. D., J. C. Mitchell, M. D.; Tennessee, J. P. Harvill, M. D., A. B. Young, M. D.; Wisconsin, E. S. Hull, M. D., J. W. Burns, M. D.; Texas, G. W. Johnson, M. D., L. S. Downs, M. D.; South Dakota, H. S. Graves, M. D.; Iowa, L. J. Bement, M. D., E. H. Ellingsen, M. D.; Nebraska, R. B. Crawford, M. D., C. Pickett, M. D.; Kansas, H. Michner, M. D.; J. C. Entz, M. D.; Missouri, H. H. Brockman, M. D., J. T. McClannahan, M. D.; Arkansas, R. L. Smith, M. D., J. W. Tibballs, M. D.; Oklahoma Territory, E. G. Sharp, M. D.; Indian Territory, J. F. Son, M. D.; Colorado, T. W. Miles, M. D., W. O. Patterson, M. D.; California, C. E. Wilbourne, M. D., L. A. Perce, M. D.; Oregon, A. L. Henderson, M. D.

From the colleges: Eclectic Medical College of New York, G. W. Boskowitz, M. D.; Georgia Medical College, W. M. Durham, M. D.; Eclectic Medical Institute, W. C. Wintermute, M. D.; Bennett Medical College, H. E. Whitford, M. D.; Lincoln Medical College, J. M. Keys, M. D.; Kansas City Eclectic Medical College, Charles Palmer, M. D.; American Medical College, P. C. Clayburg, M. D.; California Eclectic Medical College, L. A. Perce, M. D.

The College withdrew to the committee rooms for election of officers.

RESUMPTION OF SECTION WORK.

DR. ELLINGWOOD presented his paper in the section of Materia Medica and Therapeutics, entitled "Santonin in a New Field." The paper was discussed by Drs. Kinnett, Truax, Baird, Widener and Thomas.

DR. TRUAX made some remarks on lycopodium.

REPORT OF THE COMMITTEE ON CREDENTIALS.

The President then called for a report from the Committee on Credentials. The committee presented the names of Dr. R. E. Twitchell, of East St. Louis, and O. M. Moore, of New York.

The report was approved.

REPORT OF THE ELECTORAL COLLEGE.

DR. MCCANN, Secretary of the Electoral College, announced that The College was ready to report. He reported as follows:

The Electoral College of the National Eclectic Medical Association met in the parlors of the Epworth Hotel at 10:30 A.M. Dr. Downs, of Texas, was chosen chairman, Dr. J. D. McCann, of Indiana, secretary. The following officers were elected, subject to the approval of this Association, by the adoption of this report:

W. E. Kinnett, Yorkville, Ill., president; L. A. Perce, Long Beach, Cal., 1st vice-president; M. E. Daniels, Honey Grove, Tex., 2nd vice-president; J. R. DuVall, Atlanta, Ga., 3rd vice-president; Finley Ellingwood, Chicago, Ills., secretary; W. T. Gemmill, Forest, Ohio, treasurer; H. H. Helbing, St. Louis, Mo., corresponding secretary.

Saratoga Springs was selected the next place of meeting.

The report was unanimously approved by the convention.

INSTALLATION OF OFFICERS.

Drs. Felter, Boskowitz, Wilmeth and Winter were appointed to present the officers selected for installation.

DR. BOSKOWITZ presented the President-elect, Dr. W. E. Kinnett, of Illinois, as follows: It gives me pleasure to introduce to

you the man who was able to control the largest number of votes in the Electoral College, and who was elected unanimously as your president. A man who can show that popularity needs no introduction, and I present him to the president and to you.

DR. KINNETT replied: Mr. President, ladies and gentlemen, members of the National Eclectic Medical Association, I assure you that this is a surprise to me. In the first place, I desire to thank you for the honor you have conferred upon me. I am not prepared with a speech, and in the next place, I have worked on the Committee of Credentials until I have almost lost my breath, in order to get in all the members we could. I am not going to make you any promises; then I will have none to break. I will simply do the best I can for the interests of this Association at all times, while I am its officer. I don't expect to please all.

DR. FELTER presented Dr. M. E. Daniel, of Texas, Second Vice-President: I take pleasure in presenting this young man from the great state of Texas, who has done so much for Eclecticism in the past few years.

DR. DANIELS: I do not see that there is any occasion for making promises, as Dr. Kinnett stated. I will do the best I can in my small way, and do all I can for the up-building of this Association, as I have tried to do in the past. In the name of Texas I thank you for the honor conferred on our State Association through me. Some one has said, a school teacher who pleases every one is a fool. I don't know but a doctor would be the same. I will do the best I can for the interests of the Association. Again I thank you for this honor.

DR. WINTER presented Dr. B. E. DuVall, of Georgia. He remarked: I take pleasure in introducing to you a man who comes from the great stronghold of Eclecticism in the South, Dr. DuVall, of Georgia.

DR. DUVALL, replying, said: I think that medicine is the grandest profession of all, and I feel sure that Eclecticism is the noblest system. Believing that, I believe the National Eclectic Medical Association is the most important association under the sun, and that any office, however small, is an honor to any man however great, and I therefore consider it a great honor to be Third Vice-President of this Association, and thank you for the honor.

DR. BOSKOWITZ presented the Secretary. He said: I am glad this duty falls on me to again present the Recording Secretary,

and this is the time when I would like to make a speech and tell you about the troubles and the trials and tribulations that a man who acts as secretary of an association of this kind really has. I want you to look squarely into the face of this man who is willing to accept this position for the third time, and accepts it smilingly and pleasantly in spite of the work to do. I present with pleasure Dr. Finley Ellingwood to you.

DR. ELLINGWOOD replied: If I were to judge from the warm, hearty handshake, and the urgent words of approval, and the kind expressions I have received from all of you, I would think you were my friends. If I were to judge from the fact that you re-elected me to this office, I don't know whether you are or not. A question rises in my mind. No one can know about a Secretary's duties until he has had something to do with it. I have tried to tell you how anxious I am and have been to do my part to elevate this Association of ours into a conspicuous place, so that we may all have the benefit of the prestige its name will carry with it. I told you a year ago that my ambition for this Association was on a higher peg than a year before. I have put that peg up three or four notches higher since my election last year, and I am very anxious this year not only to do something that is for *the best good* of this Association, but everything I can, with your approval. I want you to feel that I am trying to do it for the *good* of this Association. I have the cause of Eclecticism at heart. I want you to feel that every move I make I think it is for the good—the building up of Eclecticism, and that it shall be established on a high pedestal for the future good of the masses of the people.

DR. WILMETH presented Dr. L. A. Perce of California, First Vice-President. He said: I have an honor no less pleasant than that of the gentleman who preceded me, in introducing our First Vice-President, a gentleman whom you have come to know and admire here. He comes from that wonderful state of California, which produces so many good things, and I leave him to make his addresses to you.

DR. PERCE: I thank you in the name of the Eclectics of California for the honor you have conferred on me and on them through me. I desire to assure you that while Dr. Kinnett is not willing to promise a great many things, I am ready to promise everything. If there is any one more able than I to dodge around promises, I will help elect him next year. I will agree to this

proposition: if Dr. Kinnett will agree to pound the table next year, I will agree to pound the Association, and I think we will get along nicely, and I want to thank you, one and all, for the honor conferred on me, and for which I think I am really not competent, but which I assume in the name of Eclecticism in California.

DR. WILMETH presented the Corresponding Secretary, Dr. Hugh H. Helbing with these words: I present to the convention the name of the gentleman who has made us feel so comfortable here, and has attended so grandly to the wants while here, and who is willing to take on more work for another year.

DR. HELBING replied: In the name of St. Louis and Missouri, I want to thank you for the honor you have conferred upon us. I feel now that we have been well repaid for the work we have done for this Association. We hope you all feel satisfied with the entertainment that has been given you. The cause of Eclecticism is dear to me, and if I can add one small mite to its unlifting I am glad to take a position to do so. I am glad I am in a position to work. I have an abundant energy, and I like to work it off in this cause. I assure you it will be a pleasure to me to carry out the wishes of this Association. I thank you for the honor you have conferred.

DR. WINTER presented the Treasurer: I have pleasure in presenting one who needs no presentation, one who has been in the work so long that he is known to each of us.

DR. GEMMILL, in response said: It is certainly very embarrassing to me to appear before you, not having been accustomed to it; nevertheless, I shall try to do my duty as your Treasurer the coming year, as I have tried to do it in the past. I have tried to handle your finances in a way that will render the most good, and act as watch dog on your funds. I will say that when I took charge of this treasurer's office we were about $1600 worse off than nothing. Ever since my first election to this position I have endeavored to wipe out this debt and place this Association in a good financial condition so far as I could do, and I have succeeded in doing so by your help. Many of you have been reminded often of the little mite owing the Association, and you have responded nicely and come up with the cash, and I am glad to say we have $1700 to $1800 now, on leaving St. Louis, in the treasury.

DR. THOMAS, the out-going President, presenting the gavel

to the newly-elected President, said: Dr. Kinnett, it affords me great pleasure, in more ways than one, as President of this Association, to present to you this gavel, and bespeak for you the hearty support of this Association. Eclecticism was never more honored than to-day. The outlook never was brighter. The outlook for this National Association was never more reassuring. I am sure when I bespeak for you the hearty support and co-operation of every member of this Association in making next year's meeting a great success, I merely voice the sentiment of the entire Association. Let every one go from here with the determination not only of supporting the President, but with the determination personally of making the Association next year in Saratoga Springs one of the most successful in its history.

DR. KINNETT then took the chair.

It was moved, seconded and ordered that a rising vote of thanks be given to the retiring officers. This was done.

APPRECIATION OF THE PRESS.

DR. BOSKOWITZ: I would like to move that a rising vote of thanks be extended to the press of St. Louis, and if you will put the motion, and have it seconded, I would like to say a word.

The motion was seconded.

"I hope that this vote of thanks will pass unanimously. From some things said here yesterday it seemed as though the press of St. Louis was not inclined to treat us right. I made it my personal business to visit three of the important papers of the city, and informed them of our meeting and of the large number of people who were in attendance here and the amount of money being spent in the city of St. Louis by Eclectics. They received us most kindly and pleasantly, and agreed to publish in every paper any statement of the proceedings of this Association that we wanted to give them. I then presented the short statement prepared by our Corresponding Secretary, together with the program, marking as many names as I could remember of those present, and I read in this morning's paper a very pleasant notice, and I feel sure that in the *Star,* that will be published this afternoon, we will have another pleasant notice. I therefore know that if the papers had had the opportunity, and we had been located where they could have had a reporter here through the meeting, we would have received every consideration."

The motion was carried unanimously.

FINAL AND COMPLETE REPORT OF THE COMMITTEE ON CREDENTIALS.

The Committee on Credentials submitted a final report which was approved.

The following is a complete list of those recommended by the Committee and formally admitted to membership in the Association at this 1904 Session:

J. T. Blank, Elk City, Kans.
D. R. Bement, Mt. Ayr, Ia.
W. F. Flack, Longton, Kans.
E. B. Fulliam, Muscatine, Ia.
E. E. Gadd, Elkhart, Ia.
R. L. Smith, Russelville, Ark.
J. F. Son, Ardmore, Ind. Ter.
Pearl Hale Tatman, Eureka Springs, Ark.
John W. Tibballs, Grange, Ark.
..Jas. F. Youmans, Wichita, Kans.
Marquis D. L. Isley, Excelsior Springs, Mo.
Earl H. King, Saratoga Springs, N. Y.
Wilbur J. James, Clay Center, Kans.
W. W. Maple, Des Moines, Ia.
R. E. Massey, Topeka, Kans.
Elisha C. Pace, Ossawatomie, Kans.
J. R. Rader, Caney, Kans.
E. J. Dech, Easton, Pa.
J. L. Richardson, Lowes, Ky.
F. N. Simpson, Milbourn, Ky.
W. H. Lester, Dublin, Ky.
J. J. Link, St. Louis, Mo.
G. A. Hinton, Hot Springs, Ark.
A. C. Wilkins, Jennings, La.
Chas. J. Heminger, Rockwood, Pa.
Rosa B. Gates, Waco, Tex.
H. W. Gates, Waco, Tex.
E. H. Cowan, Crowell, Tex.
Franklin Goble Fay, Sacramento, Cal.
Geo. E. Krapf, St. Louis, Mo.
J. W. Thiel, St. Bernard, Ham. Co., Ohio.
W. K. Mock, Cleveland, Ohio.
A. L. Henderson, Lathrop, Mo.
F. J. Longfield, Lathrop, Mo.

C. E. Glover, Russellville, Mo.
J. W. White, W. Alexander, Pa.
Chas. W. Seeley, Wileyville, W. Va.
A. J. Grance, Pasadena, Cal.
J. C. Solomon, Los Angeles, Cal.
Mrs. Hannah Scott Turner, Pomona, Cal.
L. A. Perce, Long Beach, Cal.
O. C. Darling, Riverside, Cal.
O. C. Wilbourn, Los Angeles, Cal.
Samuel Metheny, Lincoln, Neb.
Isaiah Bennett, Wilsonville, Neb.
Cyrus Pickett, Broken Bow, Neb.
Chas. H. Bushnell, Chicago, Ill.
Henry Markee, Blandinsville, Ill.
J. E. Watson, Otterville, Ill.
Ray L. Richardson, Quincy, Ill.
J. O. Cummins, Isom, Tenn.
W. O. Patterson, Pueblo, Colo.
G. Adolphus, Atlanta, Ga.
H. V. Brcwn, Griswold, Ia.
P. F. Price, Milo, Ia.
Theodore Barnes, Chariton, Ia.
H. Michner, Wichita, Kans.
S. H. Murphy, Thayer, Kans.
J. A. Archer, Grenola, Kans.
J. A. Witte, Moody, Tex.
J. S. Billings, Athensville, Ill.
J. W. Wilson, Chicago, Ill.
J. T. Evans, Springfield, Mo.
W. H. Gage, Kenton, Ohio.
O. B. Nesbitt, Valparaiso, Ind.
J. H. Rinehart, Centropolis, Kans.
M. M. Harvill, Nashville, Tenn.
M. H. Hennel, Coshocton, Ohio.
Thomas Bowles, Harrison, Ohio.
H. J. Hansberry, Ozark, Ark.
U. C. Coe, San Francisco, Cal.
W. L. Helsel, Scalp Level, Pa.
W. W. Smale, Hot Springs, Ark.
W. T. Cooper, Brownsville, Tenn.
J. J. Morrill, Oscar, Ky.

B. E. Twitchell, Belleville, Ill.
G. F. M. Cummings, Rock Mart, Ga.
H. C. Smith, Florence, Neb.
J. J. Martin, Bucyrus, Ohio.
Edward Barnes, Monesson, Pa.
Grace A. Graves, Chicago, Ill.
J. M. T. Smith, Poplar Bluff, Mo.
J. M. Goldman, Monroe City, Ind.
E. M. Wright, Warsaw, Ohio.
G. O. Hulick, East St. Louis, Ill.
Frank W. Range, Roseville, Ill.
C. M. Neldon, Coshocton, Ohio.
T. J. Acton, Eubank, Ky.
H. E. Waite, 217 E. 13th St., New York City, N. Y.
Sophia Billenkamp, St. Louis, Mo.
O. C. Baird, Chanute, Kans.
O. M. Moore, York, Neb.
W. L. Werner, Thomas, W. Va.
R. A. Twitchell, E. St. Louis, Ill.

DR. PAUL HARVILL: Moved that we defray the expense of the Corresponding Secretary for the past year. Seconded and so ordered.

A motion was then made that the Session of the National Eclectic Medical Association of 1904 adjourn to meet at Saratoga Springs, New York, in June, 1905. The motion was seconded and carried, and the Association adjourned.

ROLLA L. THOMAS, M. D., *President.*
FINLEY ELLINGWOOD, M. D., *Secretary.*

PREAMBLE,

ACT OF INCORPORATION,

CONSTITUTION, BY-LAWS

AND

STANDING RESOLUTIONS

OF THE

National Eclectic Medical Association

Whereas, The right of doing good transcends all statutory and other enactments, and the profession of healing is therefore radically a sacred one, to be exercised by any and every person duly qualified by natural endowments and acquired skill and knowledge; and,

Whereas, The practice of medicine has become conformed to the genius of the nineteenth century, and is no more the secret art of a sacerdotal caste or privileged order, to be hedged about by penal laws, ethical codes, or other instruments of barbarism and oppression, but has become the lawful vocation of citizens, like other callings; and,

Whereas, The Constitution of the United States of America, the constitutions of the several states, and the laws enacted in conformity with them, assure and protect this right of medical practice, and all legislation, political favor, or other discrimination tending to restrict or contravene the right, especially for the purpose of fostering any school of practice under the pretext of regularity, or superior scientific knowledge, is a violation of the spirit, if not of the express provision of those instruments, and ought to be discountenanced, disregarded, opposed and resisted as a departure from the principles of Republican government, as well as of natural right; and,

Whereas, The Reformed practitioners of medicine have the same and every right to the encouragement and protection of

government as physicians of other schools, and all good citizens; and,

Whereas, The Legislature of the State of New York did, for the promotion of science and the establishment of an improved practice of medicine, enact the following Act of Incorporation:

AN ACT to incorporate THE NATIONAL ECLECTIC MEDICAL ASSOCIATION—Passed March 27, 1871.

The people of the State of New York, represented in Senate and Assembly, do enact as follows:

SECTION 1. John Wesley Johnson, Stephen H. Potter, J. S. Cowdry, William Molesworth, R. A. Gunn, J. C. Hulbert, James M. Comins, Benjamin J. Stow, Robert S. Newton, William Jones, Herod D. Garrison, J. M. Harding, S. B. Munn, Dennis E. Smith, Horatio E. Firth, and those associated with them, are hereby associated a corporation, under the name of "The National Eclectic Medical Association," with the full rights and powers for the purpose of this act as natural persons.

SEC. 2. The object of this Association shall be to maintain organized coöperation between physicians for the purpose of promoting the art and science of medicine and surgery and the dissemination of beneficial knowledge and an improved practice of medicine.

SEC. 3. The business of said corporation shall be managed by its Executive Committee, consisting of its President, Secretary, Treasurer, and such other officers as the Association shall designate; and elections shall be held annually, as provided by the Constitution. All persons so elected shall hold office for the term of one year, and until their successors are chosen. The persons elected in September last as officers of said corporation shall hold office till such election of successors. At all meetings of said Association fifteen members shall constitute a quorum for the transaction of business.

SEC. 4. The said corporation shall be subject to the provisions of title third, chapter eighteen, of the first part of the Revised Statutes and to the general laws for the government of scientific and benevolent associations so far as the same may be applicable and not inconsistent with the provisions of this Act; and,

Whereas, This Association has been duly organized in accordance with the provisions and purposes of the aforesaid statute;

We, the members of the Eclectic School of Medicine, subscribing in good faith to the doctrine and principles of Reformed Medicine, as formulated and announced from time to time, and duly proclaimed, do now adopt the following:

CONSTITUTION.

ARTICLE I.—NAME.

This Society shall be known by the name of THE NATIONAL ECLECTIC MEDICAL ASSOCIATION.

ARTICE II.—OBJECT.

The object of this Association shall be to maintain organized coöperation between physicians for the purpose of promoting the art and science of medicine and surgery and the dissemination of beneficial knowledge and an improved practice of medicine.

ARTICLE III.—MEMBERSHIP.

This Association shall consist of such permanent members as duly become such and conform to the requirements and regulations; also, of delegates appointed by local and state associations in sympathy with this Association and its objects. The permanent members shall have full power and acknowledgment as such while acting in coöperation with this Association, and delegates shall have and exercise the power and privileges of members, subject to the By-Laws and other regulations, for the period of one year.

ARTICLE IV.—OFFICERS AND EXECUTIVE COMMITTEE.

The officers of this Association shall consist of a President, three Vice-Presidents, a Corresponding and a Recording Secretary, and a Treasurer, who shall severally exercise the powers and duties assigned to such officers by the usages of parliamentary and other public bodies. They shall constitute the Executive Committee of the Association for the transaction of all business when the Association is not in session, which has not been delegated to standing or other committees. The seal of the Association, whenever practical, shall be placed upon all official papers.

Article V.—Committee on Status and Organization.

It shall be the duty of the President to appoint a Committee on "Status and Organization," consisting of the Recording Secretary of the N. E. M. A., its Chairman, and the Secretary of each State Eclectic Medical Society, and in states where there is no state society, he shall appoint some member of the National, or other suitable person, who may reside in such state.

It shall be the duty of this committee to meet annually on the evening of the second day of the session, to report the condition of Eclecticism in their respective states, and to discuss ways and means by which a more perfect organization in the state and National Associations may be effected. The report of this committee shall be made to the National on the morning of the third day of the session.

Article VI.—Reports and Essays.

The President shall, within six months of the holding of the annual meeting, designate members as chairmen and secretaries of the various sections, whose duty it shall be to secure papers and reports for such sections, to be submitted at the annual meeting next ensuing. Every member of the Association may, however, communicate to the Association or its Secretary all interesting cases, improvements, discoveries and suggestions, as he shall consider useful, and prepare papers and essays on topics connected with medical science or practice which may, whenever judged of sufficient importance, be published in the Transactions.

Article VII.—Meetings.

The annual meeting of the association shall convene on the third Tuesday of June, at 10 o'clock a. m., at such place as the Electoral Committee may designate; but the Executive Committee of the National Association may change the time and place of meeting, in case some emergency should arise in which it would be detrimental to meet as provided by the Electoral Committee. The period of holding the meeting shall be at least three days.

Article VIII.—Amendments.

Amendments may be made to the Constitution and By-Laws at any regular meeting by a vote of not less than two-thirds of the members present, notice having been given at a previous annual meeting, and provided such notice has been printed in the announcement to the members of this Association.

BY-LAWS.

ARTICLE I.—MEMBERSHIP.

SECTION 1. This Association may receive as permanent members such persons, graduates of regularly organized medical colleges, or physicians of fifteen years' practice, who are legally qualified to practice in their respective states, as are duly nominated as delegates by a State Eclectic Medical Society, or such local Society, auxiliary to the State Eclectic Medical Society, to which such delegates may belong; also, such applicants for membership from states having no State or District Societies, and who are vouched for by two or more members of this Association; also, persons of high scientific attainments upon the nomination of a member and the recommendation of the Committee on Credentials. Persons of high medical and scientific attainments from other countries may, upon the nomination of a member and the recommendation of the Committee on Credentials, be elected honorary members at the annual meeting next after such meeting.

SEC. 2. Every State Medical Society in sympathy with this Association and its purposes, and every local or district society auxiliary to such society, and every medical college that is in good standing are authorized to appoint delegates annually to the Association.

SEC. 3. The credentials of delegates shall set forth their academic rank; the institution at which they received the degree of Doctor of Medicine, and the time during which they have been engaged in the practice. These credentials, when accompanied by the initiation fee, shall be duly referred without reading, unless such reading be asked for, to the Committee on Credentials for action. Such committee shall post in a conspicuous manner, in the place of meeting, all names referred to them before action is taken on the same.

SEC. 4. It shall be the duty of the Secretary of each State or Local Society in affiliation with the National Eclectic Medical Association to report annually to the Secretary of the National Eclectic Medical Association the name of each person who, for any cause, has forfeited his fellowship in said State or Local Association, which report shall be read to the National Eclectic Medical Association.

ARTICLE II.—FEES AND DUES.

SECTION 1. Every person duly elected as a permanent member of this Association shall complete such membership by paying an initiation fee of seven dollars. He shall also report any change of residence annually, to the Secretary, within one month from the time of holding the annual meeting; and shall likewise, after the first year, pay an annual due of five dollars. Worthy members of this Association and former Presidents can, upon resolution adopted at any meeting by a majority vote of not less than two-thirds of all members present, be exempted from the provisions of this section, except so far as relates to the reporting of name and residence, as aforesaid, and such members shall be designated Exempt Members.

SEC. 2. It shall be the duty of the Treasurer, on the second day of the annual meeting, and also on the day ensuing, to report the name of every member in arrears for dues, in open session, for the action of this Association.

SEC. 3. Each permanent member shall be entitled to a certificate of membership, duly authenticated by the seal of the Association, and the signatures of the President and Secretary. He shall, on the payment of the annual dues, be entitled to a printed volume of the Transactions. Members in arrears for more than two years' dues shall not be entitled to exercise the rights of membership.

SEC. 4. The omission to pay dues for two years shall be equivalent to a surrender of membership. Persons who are in arrears for dues may be entitled to the full right of membership by payment of such arrearages.

ARTICLE III.—ETHICS.

SECTION 1. The members of this Association shall exercise toward each other, toward all physicians, Eclectics especially, and toward all mankind, that courtesy and just dealing to which every one in his legitimate sphere is entitled, and any departure therefrom shall be deemed unprofessional, undignified, and unworthy an honorable practitioner of an honorable profession. It shall also be regarded as unbecoming to engage in any form of practice or of advertising which shall tend to lower the physician in the esteem of the community, or to reflect discredit upon his professional associates.

ARTICLE IV.—DISCIPLINE OF MEMBERS.

SECTION 1. Any member may be officially censured, invited to withdraw, or be expelled from membership for improper conduct or a violation of professional comity, but it shall be necessary for a specific charge to be made in writing, one copy to be presented to the accused, or some person acting in his behalf, and another to be in the hands of the President, one month before the time for holding a regular meeting.

SEC. 2. All professors or officers of colleges voting or otherwise coöperating in the conferring of the degree of Doctor of Medicine, or any person not duly entitled to the same by the necessary attendance on medical lectures and through examination, shall be considered as liable to the penalties enumerated in this article.

SEC. 3. A member of this Association who commends a proprietary medicine which is advertised to the public, whether the formula be known or not, may be considered guilty of unprofessional conduct, and may be upon proof duly shown, censured and allowed to withdraw by returning his certificate of membership to the Association, or be expelled.

SEC. 4. Any person expelled from this Association shall not be received as a delegate to this Association until the Society, whether state or local, to which he shall belong, shall show sufficient cause for reinstatement in this Association.

ARTICLE V.—DEGREE OF DOCTOR OF MEDICINE.

SECTION 1. Medical colleges that are recognized as in good standing with this Association are entitled to send delegates and to be recognized in the Electoral Committee for the election of officers and the selection of the place of meeting. The schedule of requirements for graduation of students in medical colleges recognized by the National Eclectic Medical Association shall be the same as are prescribed by and fulfilled in the minimum requirements of the National Confederation of Eclectic Medical Colleges.

SEC. 2. The National Confederation of Eclectic Colleges shall be under the direction of the National Eclectic Medical Association. All matters pertaining to the study of medicine in medical colleges shall be referred to the National Confederation for their action. The National Confederation of Eclectic Medical Colleges shall report all business transacted at the annual meeting of the National Association for approval.

ARTICLE VI.—ELECTION OF OFFICERS.

SECTION 1. At every annual meeting of the Association, upon the last day of the session, there shall be an Electoral Committee chosen by the members and delegates, as follows: The members representing each state in this Association, and residing in the state they represent, shall elect, by majority vote, two members, and the delegates from each medical college recognized by and represented in this Association shall elect one member of the Electoral Committee, and a majority of the Electoral Committee having convened and duly organized, shall elect the officers of the Association, and select the next place of meeting by ballot.

ARTICLE VII.—DUTIES OF OFFICERS.

SECTION 1. The President shall have general supervision of the Association, and shall appoint the following standing committees:

1st. On affairs of medical colleges: A permanent committee to consist of one member from each college, whose duty it shall be to consider such contingent matters as may arise concerning the status of medical institutions, and to whom shall be referred all complaints and disputes of matters relating to medical colleges, without debate.

2nd. On grievances: An Annual Committee to consist of five members, appointed at its earliest convenience, to whom shall be referred all complaints and disputes between members, and charges against members of unprofessional conduct.

3rd. On medical legislation: An Annual Committee consisting of one member from each state. To this committee shall be referred, without motion, all matters pertaining to the enactment and enforcement of laws for the regulation of the practice of medicine in the several states affecting the status of Eclectic medical colleges and Eclectic physicians of such states.

4th. Finance Committee, consisting of three members, to whom shall be referred all matters of expense for the ensuing year, excepting such expenses as may be considered current expenses. It shall be the duty of this committee to audit the accounts of the Secretary and Treasurer, and report at the annual meeting at such times as the report may be called for.

5th. A Committee on Status and Organization as provided for in the Constitution of the National Eclectic Medical Association.

SEC. 2. The Vice-Presidents are to coöperate with the President in furthering the interests of this Association, and in case of his absence or death, assume his office in their respective order.

SEC. 3. The Recording Secretary shall have charge of the proceedings of this Association, and shall act as custodian for the property of the same. He shall keep the records of the meeting, and shall keep a complete file of all books and papers belonging to the Association. He shall act as editor of the Transactions, and, in connection with the President and Treasurer, shall act as the Publishing Committee. At the expiration of his official term he shall turn over to his successor, in good order, the appurtenances of his office.

SEC. 4. The Recording Secretary and Treasurer shall receive, as remuneration for services rendered, their traveling expenses to and from the meetings, together with hotel bills.

SEC. 5. The Corresponding Secretary, in addition to the usual duties of such office, at the direction of the President, shall have charge of and make arrangements for the meetings of the Association, and shall procure reduced railroad rates, and otherwise aid the officers in the performance of their work.

SEC. 6. The Treasurer shall collect and disburse and have charge of all moneys belonging to the Association, and shall keep an accurate account between the Association and its members, collecting all dues, and paying all current and other bills approved by the Finance Committee. He shall render a statement, at the close of each fiscal year, of his receipts and his disbursements.

ARTICLE VIII.—QUORUM.

SECTION 1. Fifteen members at any regular meeting shall constitute a lawful number for the transaction of business; but a smaller number may receive reports.

ARTICLE IX.—PAPERS AND ESSAYS.

SECTION 1. All papers designed for this Association shall be accepted and read, or referred by title in its appropriate section, and become the property of the Association. In the absence of the officers of any section, the vacancy shall be filled by an appointment by the President.

SEC. 2. The Chairman of each section shall convene his section at the earliest possible opportunity, and all papers that have been submitted shall be considered, and the recommendation of the section communicated to the Association. The reading of

each essay is not to consume more than fifteen minutes, and no member shall speak more than twice on the same subject, nor consume above three minutes. The entire discussion is not to occupy more than thirty minutes.

ARTICLE X.—TRANSACTIONS.

SECTION 1. All papers read or submitted by title to this Association shall be considered its property, to be published at the discretion of the Publishing Committee in the Annual Transactions, though members may reserve the right, if they wish, to copyright the same, the fact to be so stated in the published reports of the Association. All papers for publication in the Transactions shall be in the possession of the Recording Secretary within sixty days after the close of the annual meeting of the Association.

SEC. 2. The Transactions shall be published annually bound in cloth, and the Recording Secretary is authorized to present copies to public libraries or State Boards of Medical Examiners and other bodies when, in the judgment of the Executive Committee, the welfare of this Association would be enhanced thereby.

STANDING RESOLUTIONS.

[Standing resolutions, though often but an expression of sentiment, have really the importance of by-laws, when relating to business. The Secretary, pursuant to instructions, has omitted from the category all those which have, subsequent to their adoption, been incorporated into the Constitution and By-Laws of the National Association, and also those which have been virtually superseded by others more recently adopted, or which have been rescinded.]

ECLECTIC MEDICAL COLLEGES RECOGNIZED.

Resolved, That the National Eclectic Medical Association recognizes the following Eclectic colleges as being in good standing and recommends that they receive the support of our profession:

(*a*) Eclectic Medical Institute, Cincinnati, Ohio.

(*b*) The American Medical College, St. Louis, Missouri.

(*c*) The Eclectic Medical College of the City of New York, New York City, New York.

(*d*) The Bennett College of Eclectic Medicine and Surgery, Chicago, Illinois.

(*e*) The California Medical College, San Francisco, California.

(*f*) The Georgia College of Eclectic Medicine and Surgery, Atlanta, Georgia.

(*g*) The Lincoln Medical College, Lincoln, Nebraska.

(*h*) The Kansas City Eclectic Medical College.

The following institutions were in good standing and should be so considered up to the date at which they ceased to exist:

The United States Medical College, New York City, New York. (1878 to 1882.)

The Eclectic College of Physicians and Surgeons, Indianapolis, Indiana. (1890 to 1894.)

The Iowa Eclectic Medical College, Des Moines, Iowa. (1887 to 1893.)

The Eclectic Medical College of the Drake University, Des Moines, Iowa.

The Beach Medical College, Indianapolis, Indiana. (1885 to 1886.)

The Indiana Eclectic Medical College, Indianapolis, Indiana. (1880 to 1890.)

The Eclectic Medical College of Pennsylvania, Philadelphia. (1856 to 1870.) Not extinct till 1880.

The Worthington Medical College, Worthington, Ohio, (1832 to 1838.)

The Eclectic College of Medicine and Surgery, Cincinnati, Ohio. (1856 to 1859.)

The Syracuse Eclectic Medical College, Syracuse, New York. (1850 to 1857.)

The Worcester Medical College, Worcester, Massachusetts. (1848 to 1859.)

The Reform Medical College, New York City, New York. (1836 to 1838.)

EXHIBITION OF WARES.

Resolved, That in the future sessions of this Association no exhibitions of pharmaceutical preparations, tables of medicines and surgical instruments, signs, show cards, and circulars of remedies the names of which are secured by trade-mark, shall be allowed in the hall used for the deliberations of this Association.—*Adopted June 22*, 1882.

CONCERNING PAPERS.

Resolved, That in future sessions of this Association all papers submitted to it shall be referred by the President to the proper section.

Resolved, That the Secretary of each section shall submit to the Secretary of the Association a list of all papers in the possession of each section, with the recommendation of the section thereon, and shall deliver to him all such manuscripts at the close of the session.—*Adopted June* 17, 1881.

LOST CERTIFICATES OF MEMBERSHIP.

Resolved, That the President and Secretary are hereby authorized to duplicate lost certificates on the payment of expenses for the same.—*Adopted June* 19, 1878.

STANDING OF MEDICAL COLLEGES.

Resolved, That no college shall be recognized as a medical college, in good standing, by the Association until it shall have held four annual sessions and have graduated a class, and in all other respects complied with the requirements of the National Confederation of Eclectic Medical Colleges.—*Adopted June* 19, 1901.

PUBLICATION OF PAPERS.

WHEREAS: In the published volume of our Transactions, papers and essays appear written by parties who are not members of this Association. Therefore be it

Resolved, That no essay or paper be presented at our meetings, or published in our Transactions, except by duly qualified members of this Association.

Resolved, That all papers actually read or read by title before this Association must be placed in the hands of the Publication Committee within twenty days after the adjournment of this Association to be entitled to publication in the Transactions, and be it further

Resolved, That no paper be published by this Association that has been previously published in any periodical or in any other form for distribution to the public or to the profession.

The resolutions were adopted June 11, 1903.

ARRANGEMENT FOR SECTION WORK.

WHEREAS: The increased attendance at our meetings and

the large number of papers to be presented each year during the limited time at our disposal, in the opinion of your committee, make some changes respecting Section Work desirable and necessary. Therefore, be it

Resolved, That provision be made for the holding of two or more sections at one time at the future meetings of this Association.

The resolution was adopted June 11, 1903.

REINSTATEMENT OF MEMBERS.

Resolved, That any members who may have been suspended for non-payment of dues may be reinstated on the payment of back dues which shall in no case exceed an amount equal to the dues for the first two years of such period of suspension and provided: That they are recommended by the Committee on Credentials for reinstatement.

The resolution was adopted June 11, 1903.

A PERMANENT RULE OF ORDER.

At the opening of each annual meeting of this Association an Advisory Committee shall be appointed by the President, of nine members, two of whom shall be selected from among the past Presidents of the Association, two from among the officers of the Association, and five from among delegates and permanent members, to which committee all resolutions, reports, motions, propositions and suggestions relative to financial and business affairs, management and legislation of the Association, as well as all matters other than medical and scientific subjects shall be referred without debate thereon, and no discussion shall be had in the Association upon any subject so referable to such committee except upon the report of said Advisory Committee thereon.

The resolution was adopted June 11, 1903.

PUBLICATION OF THE NATIONAL BULLETIN.

Resolved, That this Association recognizes the great good that has been accomplished by the issuing of the National Association Bulletins, and they recommend that at least two be issued each year.

The resolution was adopted June 16, 1904.

DIFFUSION OF PRINCIPLES.

Resolved, That we shall consider it our duty to use the public press when occasion warrants, to inform the people of our belief and confidence in the virtue of our Materia Medica and the success that universally follows the administration of our remedies.

The resolution was adopted June 16, 1904.

ACTS FOR ASSESSMENTS RESCINDED.

Resolved, That all resolutions and provisions regarding the assessment of state societies for the benefit of this Association be rescinded.

The resolution was adopted June 11, 1903.

CONSTITUTION AND BY-LAWS.

OF THE

Ladies' Auxiliary of the N. E. M. A.

CONSTITUTION.

ARTICLE I.

This society shall be known as the Ladies' Auxiliary of the National Eclectic Medical Association.

ARTICLE II.

The object of this society is to encourage the attendance of the immediate lady relatives of the members of the National Eclectic Medical Association, to promote acquaintance and friendship among them, and to contribute to the general sociability of the sessions.

ARTICLE III.

Those eligible to membership are the wives, daughters, mothers and sisters of the members of the National Eclectic Medical Association, and the lady physicians who are members of the National.

ARTICLE IV.

The officers shall consist of a President, who is not a member of the National Eclectic Medical Association, a First, Second and Third Vice-President, a Secretary, and a Treasurer, who shall hold office until the close of the session of the National Association of the following year.

The officers shall constitute a reception committee for special occasions where such a committee is required, and the President shall have the power to appoint other ladies from the membership upon this committee and to convene the committee at her pleasure, as required.

ARTICLE V.

The meetings of this Auxiliary shall be held at the call of the President during the sessions of the National, to transact any business of the Auxiliary and to elect officers.

BY-LAWS.

ARTICLE I.

The officers shall be elected at the annual meeting called by the President, at which a quorum of seven members must be present. Voting shall be by ballot, a majority of the votes electing the officers.

ARTICLE II.

The initiation fee shall be one dollar.

The subsequent annual dues shall be fifty cents, payable in advance.

ARTICLE III.

The order of business shall be such as is usually adopted by parliamentary bodies.

ARTICLE IV.

The payment of the annual dues secures the privileges of membership for one year from the date of payment, and such privileges are suspended at the end of the year until further payment.

ARTICLE V.

This Constitution and By-Laws may be amended by a vote of three-fourths of the members present at any regular meeting.

MINIMUM REQUIREMENTS OF THE NATIONAL CONFEDERATION OF ECLECTIC MEDICAL COLLEGES.

The following are the minimum requirements of the National Confederation of Eclectic Medical Colleges:

FIRST.—Preliminary Requirements.

1. Creditable certificate of good moral standing.

2. Good English education, to be attested by (a) first grade teacher's certificate; (b) a diploma from a graded high school or literary or scientific college or university; (c) regent's medical student's certificates; (d) entrance examination.

3. An elementary knowledge of natural history, physics and Latin.

SECOND.—Advanced Standing.

Graduates from pharmaceutical, dental and veterinary colleges may be allowed one year's time on a four-year medical course only on condition that they comply with the entrance requirements and pass all examinations and perform all laboratory work embraced in the course of study of the freshman year. One year's advanced standing may be given students with degrees from a recognized literary college who have taken a preparatory medical course.

THIRD.—Course of Instruction.

The course of instruction shall consist of a four-year graded course or its equivalent, as herein prescribed, including four sessions of six months in four different calendar years.

The following graded course is recommended:

Branches in the Freshman Year.

Anatomy, dissection, osteology, chemistry, physiology, histology, materia medica and pharmacy.

Examinations to be held on all first-year studies, and be final in chemistry, osteology, histology, materia medica and pharmacy.

Branches in the Sophomore Year.

Anatomy, dissection, toxicology, physiology, pathology, bacteriology, therapeutics, physical diagnosis, hygiene, minor surgery and bandaging.

Examinations in all second-year studies and final in anatomy, toxicology, physiology, pathology, bacteriology, physical diagnosis, hygiene, minor surgery and bandaging.

Branches in the Junior Year.

Practice and principles of medicine, diseases of children, surgical anatomy and operations upon the cadaver, the principles and practice of surgery (including orthopedic surgery), gynecology, obstetrics, electro-therapeutics, medical jurisprudence.

Examinations in all third-year studies, and final in therapeutics, surgical anatomy and electro-therapeutics.

Senior Year Branches.

Practice and principles of medicine, diseases of children, principles and practice of surgery, gynecology, obstetrics, diseases of the eye, ear, nose and throat, venereal diseases and dermatology, medical jurisprudence.

In addition to the above branches the students in the junior and senior years are required to attend clinics and autopsies and do practical laboratory work in medical diagnosis.

FOURTH.—Attendance and Examinations.

Regular attendance during the entire lecture course is required, allowance to be made only for absence occasioned by the student's sickness, such absence not to exceed twenty per centum of the course.

Regular examinations or quizzes to be made by each professor or lecturer from time to time during the term.

Final examinations on the branches held, to be conducted by competent examiners.

Each student shall have dissected the lateral half of the cadaver, the dissection to be in two separate years.

Attendance upon clinical and hospital instruction and instruction at autopsies.

FIFTH.—Requirements for Graduation.

Attainment of twenty-one years of age.

Creditable certificate of good moral standing, and good conduct while in college.

Attendance on four courses of medical lectures of six months each, or its equivalent.

Regular attendance during the course of lectures, clinics and quizzes.

Satisfactory examination in all branches, with a rating of not less than seventy per centum average.

Attendance on two courses of lectures on anatomy, and the dissection of the lateral half of the cadaver.

SOCIETIES AUXILIARY TO THE NATIONAL.

Arkansas Eclectic Medical Association.
California State Eclectic Medical Society.
Chicago Eclectic Medical and Surgical Society.
Cincinnati Eclectic Medical Society.
Connecticut Eclectic Medical Association.
Florida Eclectic Medical Society.
Georgia Eclectic Medical Association.
Illinois State Eclectic Medical Society.
Indiana State Eclectic Medical Association.
Iowa State Eclectic Medical Society.
Indian Territory Eclectic Medical Society.
Kansas Eclectic Medical Association.
Kentucky State Eclectic Medical Society.
Maine Eclectic Medical Society.
Massachusetts Eclectic Medical Society.
Michigan State Eclectic Medical and Surgical Society.
Minnesota State Eclectic Medical Society.
Missouri State Eclectic Medical Society.
Nebraska State Eclectic Medical Society.
New Hampshire Eclectic Medical Society.
Eclectic Medical Society of the State of New Jersey.
Eclectic Medical Society of the State of New York.
Ohio Central Eclectic Medical Society.
N. W. Ohio Eclectic Medical Society.
Ohio State Eclectic Medical Association.
Oklahoma Eclectic Medical Society.
Oregon State Eclectic Medical Association.
Eclectic Medical Association of Pennsylvania.
S. Dakota Eclectic Medical Society.
Tennessee State Eclectic Medical Society.
Eclectic Medical Association of Texas.
Eclectic Medical Association of the State of Washington.
Eclectic Medical Association of West Virginia.
Wisconsin State Eclectic Medical Society.

LIST OF MEMBERS

NINETEEN HUNDRED AND FOUR.

[This list has been duly revised from the latest information in the possession of the Secretary and Treasurer. If any here listed do not receive the Transactions it will be because of a change of location of which the Secretary has not been informed, or because of the Constitutional inhibition—By-Laws, Article II, Section 4.

[The President and former Presidents are named in small capitals, Rec. Secretaries in italics, members exempted from the payment of annual dues by the designation *ex.*]

Year.

Abbott, F. W., 72 Broadway, Taunton, Mass.....1890
Acton, T. J., Eubank, Ky.....1904
Adolphus, Geo., Atlanta, Ga.....1904
Alexander, B. J., Hiawatha, Kan.....1890
Alexander, John H., Mukwonago, Wis.....1877
Anderson, J. M., Barnesville, Ga.....1903
Archer, J. A., Grenola, Kan.....1904
Artman, Byron L., Garden Plain, Kan.....1903
Atkins, Albert J., 495 Parrott Building, San Francisco, Cal.1903
Austin, F. H., Jamestown, Ind.....1903
Aylsworth, George M., Collingwood, Can.....1901

Bailey, Leonard, Middletown, Conn.....1882
Baird, O. C., Chanute, Kan.....1904
BAKER, VINCENT ALEX., 31 W. Maumee St., Adrian, Mich..1870
Baldridge, Ezra R., Rosedale, Ind.....1903
Baldwin, M. F., Converse, Ind.....1902
Baldwin, Zell L., Niles, Mich.....1897
Band, Charles, *ex.*, Monroe, Ore.....1878
Bangert, John R., Shippenville, Clarion County, Pa.....1894
Barnes, Ed. W., Monessen, Pa.....1904
Barnes, Theo., Chariton, Iowa.....1904
Baurichter, C. H., *ex*.....1885
Beals, F. M., Mattoon, Ill.....1901

Bement, D. R., Mt. Ayr, Iowa.....1904
Bennett, Isaiah, Wilsonville, Neb.....1904
Bennett, Rorick, 38 Winter St., Detroit, Mich.....1899
Best, William P., 2218 E. 10th St., Indianapolis, Ind.....1898
Billenkamp, Sophia, 3636 Hebert St., St. Louis, Mo.....1904
Billings, J. S., Athensville, Ill.....1904
Billman, J. M., Sullivan, Ind.....1903
Birkenhauer, Henry J., 216 E. 17th St., New York.....1901
Bishop, T. S., Albany, Mo.....1899
Blank, J. C., Elk City, Kan.....1904
Blankmeyer, H. H., Honey Grove, Tex.....1903
Blosser, H. V., Ft. Wayne, Ind.....1902
BLOYER, WILLIAM E., The Lancaster, 222 W. 7th St., Cincinnati, Ohio.....1887
Borland, J. R., Franklin, Pa.....1892
BOSKOWITZ, GEORGE W., 140 W. 71st St., New York City...1882
Bostick, John C., Benton Harbor, Mich.....1902
Brandenburg, Chas. W., 223 E. 14th St., New York City...1900
Brewer, Jay B., Jefferson, Wis.....1897
Bristol, George B., Middlebury, Conn.....1903
Brockman, H. H., Eldon, Miller County, Mo.....1895
Bowles, Thos., Harrison, Ohio.....1904
Bronson, Eugene E., Ganges, Allegan County, Mich.....1892
Brothers, C. E., Mineral Point, Ohio.....1899
Brown, C. N., Fairmount, Ind.....1903
Brown, De Ella, 1110 S. 4th St., Terre Haute, Ind.....1903
Brown, H. V., Griswold, Iowa.....1904
Bullis, Wm. L., Allerton, Wayne County, Iowa.....1903
Burns, John W., Viola, Wis.....1902
Busby, Isaac M., Brooklyn, Iowa.....1889

Campbell, James H., Allen's Grove, Wis.....1887
Campbell, R. O., College Corner, Ohio.....1903
Canfield, Moses, Frankfort, Ind.....1903
Cannon, Chas. M., 946 Raymond Ave., St. Paul, Minn.....1901
Carper, D. W., Henning, Ill.....1902
Carter, Edwin H., 407 W. Walnut St., Des Moines, Iowa..1890
Church, W. B., Holland, Mich.....1902
CLARK, ANSON L., 106 Spring St., Elgin, Ill.....1870
Clayburg, P. C., 2609 Park Ave., St. Louis, Mo.....1902
Clotts, D., Black Lick, Ohio.....1899
Coe, Erling C., San Francisco, Cal.....1904

Coe, George D., Carthage, Mo.....1901
Coffin, Orlando S., 1550 E. 10th St., Indianapolis, Ind.....1894
Cole, Charles E., Prairie du Chien, Wis.....1893
Coleman, J. M., Pekin, Ill.....1903
Cook, F. S. W., 625 Stickney Ave., Toledo, Ohio.....1901
Cooper, T. W., Brownsville, Tenn.....1904
Conley, C. W., Eaton, Ohio.....1901
Cosford, J. W., Mancelona, Mich.....1888
Cosford, Mary B., Mancelona, Mich.....1888
Cowan, E. H., Crowell, Texas.....1904
Crance, A. J., Pasadena, Cal.....1904
Crawford, R. B., 101½ Adams St., Chicago.....1901
Crow, Charles R., Indianapolis, Ind.....1903
Crowell, F. B., Lawrence, Mich.....1902
Cummings, G. F. M., Rock Mart, Ga.....1904
Cummings, J. O., Wilcox Bld'g, Nashville, Tenn.....1904

Daniel, Marquis E., Honey Grove, Texas.....1890
Darling, O. C., Riverside, Cal.....1904
Davidson, Alex W., Poplar Bluff, Mo.....1898
Davidson, Eric A., 868 Osgood St., Chicago, Ill.....1898
Davis, Geo. W., Marion, Ind.....1903
Davis, J. B., Pontiac, Ill.....1900
Davis, S. A., Salem, Oregon.....1896
Dech, E. J., Easton, Pa.....1904
Deimel, H. L., New York City.....1896
DeVer, Hugh J., 148 N. Wier St., Waterbury, Conn.....1903
Dickey, Ross V., 563 S. Main St., Lima, Ohio.....1903
Doll, Henry J., 211 W. 69th St., New York City.....1900
Doss, Geo. A., Moreland, Ga.....1903
Dowdell, Charles, Ennis, Texas.....1891
Downs, L. S., Galveston, Texas.....1899
Doyle, Theodore, 15th and Harrison Sts., Kansas City, Mo.1903
DUNCAN, JOSEPH R., *ex.*, 224 S. Washington St., Crawfordsville, Ind. 1870
Durham, L. D., Maxeys, Ga.....1903
Durham, Wm. M., Atlanta, Ga.....1872
Duvall, B. E., Dixon, Ill.....1901
Duvall, J. R., 101½ Whitehall St., Atlanta, Ga.....1899

Edson, C. C., Veedersburg, Ind.....1903
Ekermeyer, Charles W., Montgomery, Ohio.....1900

Ellingsen, Elling H., Calmar, Iowa.....1900
Ellingwood, Finley, 100 State St., Chicago, Ill.....1887
Entz, J. C., Hope, Kan.....1898
Evans, J. T., Springfield, Mo.....1904
Evarts, Henry P., 1575 Burton Ave., Grand Rapids, Mich.1893
Ewing, Cicero M., Tyrone, Pa.....1883

Faber, George A., 45 Center St., Waterbury, Conn.....1888
Farabough, J. A., Clinton, Ky 1901
FARNUM, EDWARD J., 103 State St., Chicago, Ill.....1889
Fay, F. Gobel, Sacramento, Cal.....1904
Fearn, John, 1165 Clay St., Oakland, Cal.....1888
Felter, H. W., 1733 Chase Ave., Cincinnati, Ohio.....1896
Field, C. H., Marietta, Ga.....1903
Fitch, Charles W., 640 Madison Ave., New York City.....1893
Flack, W. F., Longton, Kan.....1904
Foltz,, Eloise G., Perry, Iowa.....1898
Foltz, Kent O., 105 Odd Fellows' Building, Cincinnati, O..1899
Foote, Edward B., 120 Lexington Ave., New York City....1873
Forest, J. H., Marion, Ind.....1901
Fossett, Algernon, 110 North St., Portland, Me.....1884
Francis, C. H., 531 Burling St., Chicago, Ill.....1895
Freeman, E. R., 7th and John Sts., Cincinnati, Ohio.....1899
Fuller, George T., Mayfield, Ky.....1892
Fulliam, E. B., Muscatine, Iowa.....1904

Gadd, E. E., Elkhart, Iowa.....1904
Galieher, Pierre, Laurens, Iowa.....1898
Garth, Thomas, Clarion, Iowa 1884
Gage, Wm. H., Colorado Springs, Colo.....1904
Gates, H. W., Waco, Texas.....1904
Gates, Rosa B., Waco, Texas.....1904
Gauvreau, Edward T., Superior, Wis.....1887
GEMMILL, W. T., Forest, Ohio.....1879
Gere, G. G., 225 Geary St., San Francisco, Cal.....1896
Glover, C. S., Russellville, Mo.....1904
Goldman, J. M., Monroe City, Ind.....1904
Gordon, Wm. S., R. F. D. No. 2, Kokomo, Ind.....1903
Gortney, L. C., Babb, Ark.....1903
Goss, J. H., Decatur, Ga.....1903
Graves, Grace A., 2523 N. Ayers Ave., Irving Park, Chicago, Illinois 1904

Graves, H. S., Hurley, S. D.....1902
Graves, N. A., 518 W. Chicago Ave., Chicago, Ill.....1897
Gray, J. T., Griffin, Ga.....1903
GREEN, MILBREY, 567 Columbus Ave., Boston, Mass.....1874
Gregg, E. H., Brandt, Ohio.....1898
Gridley, F. D., 20 Arthur St., Binghamton, N. Y.....1903
Griffith, B. A., Swan Creek, Ill.....1902
Grigsby, Ulysses G., Gilmore City, Iowa.....1899

Haifley, W. H., Amboy, Ind.....1901
Halbert, Pleasant W., Cyruston, Tenn.....1889
Halbert, T. E., Nashville, Tenn.....1895
Halbert, William H., Nashville, Tenn.....1886
Hamlin, Mont. M., 2900 Lawton Ave., St. Louis, Mo.....1903
Hansberry, A. J., Ozark, Ark.....1904
Harbert, J. P., Bellefontaine, Ohio.....1902
Harding, W. O. C., Cincinnati, Ohio.....1899
Hardy, Samuel A., 239 E. 32d St., New York.....1901
Harrod, Morse, Fort Wayne, Ind.....1902
Hartley, Charles A., 150 W. Cherry St., Troy, Ohio.....1885
Harvey, Welch R., Dana, Ill.....1892
Harvill, J. Paul, 1005 S. Market St., Nashville, Tenn.....1901
Harvill, M. M., Nashville, Tenn.....1904
Hatfield, Franklin P., Frenola, Kan.....1891
Hathcock, Giles, Bellton, Ga.....1892
Hauck, J. H., Terre Haute, Ind.....1903
Hauss, Augustus P., E. Market and 14th Sts., New Albany, Ind. 1891
Hauss, Q. Robert, Sellersburg, Ind.....1899
Hawkey, W. G., Belvidere, Ill.....1902
Hawkins, Fred T., Swayzee, Ind.....1903
Hays, James, Dayton, Ohio.....1901
Helbing, H. Hugh, 4235 W. Belle Place, St. Louis, Mo....1901
Helsel, W. L., Scalp Level, Pa.....1904
Hemminger, C. J., Rockwood, Pa.....1904
Henderson, A. L., Lathrop, Mo.....1904
Henderson, H. L., Astoria, Ore.....1890
Hennel, M. H., Coshocton, Ohio.....1904
Henry, Meredith W., *ex.*, Waelder, Gonzales County, Texas.1885
Herring, N. A., 149 Pipestone St., Benton Harbor, Mich..1899
Herzog, Alfred W., 154 E. 30th St., New York.....1901
Hester, E. E., Clarence, Ill.....1903

Hinds, Mrs. Harriet C., 32 W. Grove St., E. Orange, N. J..1889
Hinton, G. A., Hot Springs, Ark.....1904
Hipp, W. Harrison, 100 State St., Chicago, Ill.....1903
Hite, George M., 610 Monroe St., Nashville, Tenn.....1889
Hobby, A. W., Port Jefferson, Ohio.....1903
Hockett, C. P., Kouts, Ind.....1903
Hollingsworth, A. S., Urbana, Ind.....1903
Hollingsworth, T. D., Creston, Ohio.....1903
Holmes, George W., Sharpes, Fla.....1901
Holmes, David W., Bellevue, Texas.....1901
Holmes, Robert Edwin, 716 N. 6th St., Harrisburg, Pa....1900
Holmes, William N., Wilcox Building, Nashville, Tenn....1899
Hoover, Eli M., N. W. cor. 2d and Chestnut Sts., Halstead, Kan.....1890
Howes, Pitts Edwin, 703 Washington St., Dorchester Dist., Boston.....1895
Hudson, W. C., Mulberry, Ark.....1901
Hulick, G. O., E. St. Louis, Ill.....1904
Hull, E. S., Milton Junction, Wis.....1902
Hull, J. S., Hicksville, Ohio.....1899
Hyde, George W., 502 S. Madison St., Clinton, Ill.....1881

Irvin, Elizabeth, 153 E. 47th St., New York City.....1901
Isley, M. D. L., Kansas City, Mo.....1904

James, W. J., Clay Center, Kan.....1904
Jewett, A., Barnard, Vt.....1904
JOHNSON, G. W., 104½ E. Houston St., San Antonio, Texas.1891
Johnston, Wm. A., Falmouth, Ind.....1903
Jones, B. K., Kenton, Ohio.....1900

Kampen, H. L., Kirkwood, Ill.....1903
Kannell, J. W., Fort Wayne, Ind.....1902
Keith, L. S., Towanda, Ill.....1900
Ketchum, Marshall B., Los Angeles, Cal.....1900
Keys, J. M., Omaha, Neb.....1904
Kidd, Walter J., Burlington, Ind.....1903
Killough, R. S., Spring Hill, Ky.....1901
King, Earl H., Saratoga Springs, N. Y.....1904
KINNETT, W. E., Yorkville, Ill.....1887
Klahr, Frank P., Horicon, Wis.....1902
Krapf, Geo. E., St. Louis, Mo.....1904

Krausi, William J., 216 E. 17th St., New York City.....1900

Laflin, Harvey B., 112 S. 11th St., LaCrosse, Wis.....1880
Leister, William L., Rogers, Ark.....1899
Lester, W. H., Dublin, Ky.....1904
Link, J. J., St. Louis, Mo.....1904
Lloyd, Charles, 176 Amity St., Brooklyn, 36 W. 93d St., New York City 1900
Lloyd, John Uri, Cincinnati, Ohio.....1898
Logan, M. H., 16 Geary St., San Francisco, Cal.....1896
Long, Henry, 232 Massachusetts Ave., Indianapolis, Ind...1871
Longfield, F. J., Lathrop, Mo.....1904
Louis, Wm. I., Brooklyn Hills, New York.....1903
Low, Phoebe, Liberty, N. Y.....1896

Maple, W. W., Des Moines, Iowa.....1904
March, L. F., Kansas City, Mo.....1903
Markee, H., Blandinsville, Ill.....1904
Marks, W. L., 705 S. Division St., Grand Rapids, Mich....1890
Martin, J., Bucyrus, Ohio.....1904
Massey, R. E., Topeka, Kan.....1904
Matthew, John B., Blue Mound, Ill.....1903
McCann, J. D., Monticello, Ind.....1892
McClanahan, J. T., Boonville, Mo.....1897
McCurdy, Columbus, Vermont, Ill.....1892
McElhinney, J. H., New London, Ohio.....1898
McGinnis, Marietta Grant, Ozone Park, Long Island, N. Y.1900
McGrew, W. H., Marion, Ind.....1903
McHenry, O. P., Hamilton, Ohio.....1903
McKee, C. E., Dublin, Ind.....1903
McKlveen, J. A., Chariton, Iowa.....1870
McLachlan, Chas. M., Elwell, Mich.....1899
McLeod, W. O., 502 W. 4th St., Santa Ana, Cal.....1896
McMillen, Bishop, Columbus, Ohio.....1895
McNeal, George L., Deer Creek, Ind.....1903
Mercer, B. W., Tiffin, Ohio.....1899
Metheny, Sam'l, Lincoln, Neb. 1904
Michener, Homer, Wichita, Kan.....1891
Migrath, J. W., Macon, Ga.....1904
Miles, C. Edwin, 126 Warren St., Boston Highlands, Mass.1871
Miles, T. Willis, 17th and Stout Sts., Denver, Colo.....1883
Mitchell, J. C., 1004 5th St., Louisville, Ky.....1902

Mock, W. K., Cleveland, Ohio.....1904
Monroe, James A., Wheeling, W. Va.....1890
Moore, O. M., York, Neb.....1904
Morey, Mary B., Gonzales, Texas.....1901
Morrill, J. J., Oscar, Ky.....1904
Morrow, B. B., Mount Victory, Ohio.....1903
Morrow, Sarah F., Nobility, Texas.....1901
Moses, Frederick W., R. F. D. No. 6, Columbus, Ind.....1903
Mundy, W. N., Forest, Ohio.....1888
MUNN, STEPHEN B., *ex.*, 35 Leavenworth St., Waterbury, Connecticut 1870
Murphy, S. H., Thayer, Kan.....1904

Neff, W. W., Greensfork, Ind. 1903
Neldon, C. M., Coshocton, Ohio 1904
Nesbit, O. B., Valparaiso, Ind.....1904
Niederkorn, J. S., Versailles, Ohio.....1903
Nifer, Frank J., 219 S. Maryland St., Indianapolis, Ind...1888
Nixon, Marion C., Calamine, Ark.....1903
Noble, Frederick A., 210 Taylor St., Seattle, Wash.....1897
Nolan, John P., 41 Charlton St., New York City.....1889
Norriss, H. C. R., Chicago, Ill.....1902

O'Brien, S. F., Hillsboro, Ky.....1901
O'Neal, L. P., Mechanicsburg, Pa.....1895
Outland, P. P., Lanesfield, Ohio.....1903
Owings, Thomas, Hinckley, Ill.....1903

Pace, E. C., Osawatomie, Kan.....1904
Packer, E. B., 622 Market St., Osage City, Kan.....1899
Palmer, Chas., 1400 Grand Ave., Kansas City, Mo.....1903
Palmer, M. J., Beardstown, Ill.....1903
Park, Anna E., 517 W. 23d St., New York City.....1881
Patterson, W. O., Pueblo, Colo.....1904
Perce, L. A., Long Beach, Cal.....1904
Perrins, John, 218 Tremont St., Boston, Mass.....1874
Perrins, Oscar A., 994 Halsey St., Brooklyn, N. Y.....1898
Pickett, Cyrus, Broken Bow, Neb.....1904
Pollock, Wm. John, 518 W. Chicago Ave., Chicago, Ill....1902
Porter, A. W., Loogootee, Ind.....1903
Postle, W. E., Shepard, Ohio.....1899

Potter, George E., 87 Halsey St., Newark, N. J.....1879
Powell, J. H., Fitzgerald, Ga.....1903
Pratt, H. P., Masonic Temple, Chicago.....1902
Price, P. F., Milo, Iowa 1904
Price, V. C., Illinois and Cass Sts., Chicago, Ill.....1870

Quigg, C. E., Tomah, Wis.....1895
Quigg, H. D., Blackwater, Mo.....1898

Rader, J. A., Caney, Kan.....1904
Ramey, W. N., Lincoln, Neb.....1901
Range, F. W., Roseville, Ill.....1904
Rauch, William, Johnstown, Pa.....1900
Ray, C. Wilbor, Mountain Lake, Minn.....1901
Reading, A. H., 6600 Jackson Ave., Chicago, Ill.....1902
Reading, E. M., 6501 Kimbark Ave., Chicago.....1903
Reeder, J. C., Montezuma, Ind.....1903
Reid, C. P., Hampshire, Ill.....1900
Reny, Henry, Biddeford, Me.....1899
Rice, John P., Fredericksburg, Texas.....1902
Richardson, Ethyl H., 835 Cedar St., Quincy, Ill.....1900
Richardson, J. L., Lowes, Ky. 1904
Richardson, Ray L., Quincy, Ill.....1904
Richter, Augustus F., 27 Beach St., Bridgeport, Conn.....1894
Rigg, C. H., Middletown, Mo.....1896
Rinehart, J. H., Centropolis, Kan.....1904
Rhodes, R. O., Clay Center, Kan.....1898
Robertson, J. D., 580 W. Madison St., Chicago, Ill.....1896
Robertson, W. V., Atlanta, Ga. 1900
Rockafellow, W. A., Laughry, Ind.....1903
Roe, J. A., Buffalo, N. Y.....1904
Rogers, E. H., Stevens Point, Wis.....1894
Ross, J. G., Portland, Ind.....1899
Ross, Lydia, Watertown, Mass.....1899
Rowe, J. Allen, 60 Niagara St., Buffalo, N. Y.....1903
Rowland, D. C., 2413 Correctionville Road, Sioux City, Ia..1897
Rudd, R. T., Fulton, Ky.....1901
Rush, C. H., Falls City, Neb.....1902
RUSSELL, L. E., The Groton, Cincinnati, Ohio.....1879
Russell, William H., Ipswich, Mass.....1899

Sanderson, Samuel E., East Minnesota, Minn.....1902

Schmitz, Henry, 508 W. Chicago Ave., Chicago.....1902
Schussler, W. R., Orland, Ill.....1904
Scudder, J. K., 1009 Plum St., Cincinnati, Ohio.....1888
Seeley, C. W., Wileyville, W. Va.....1904
Shafer, G. R., Peoria, Ill.....1895
Shafer, Winfield S., Rochester, Ind.....1903
Sharp, E. G., Guthrie, Okla.....1899
Sharp, R. W., Buckland, Ohio.....1902
Sheets, Vaughn L., Chicago, Ill.....1903
Shelton, A. B., Boydsville, Ky.....1901
Shepard, William, Columbus, Ohio.....1899
Sherman, S. M., 244 20th St., Columbus, Ohio.....1895
Shewman, E. B., Waynesville, Ind.....1903
Shrout, W. T., Waldron, Ind.....1903
Shuey, Austin, Prospect, Ohio.....1899
Sillo, Valdimar, 406 W. 57th St., New York City.....1903
Simpson, F. N., Milbourn, Ky.....1904
Sloan, Nannie M., Latrobe, Pa.....1903
Sluyter, S. D., Ft. Wayne, Ind.....1902
Smale, W. W., Hot Springs, Ark.....1904
Smith, Chas. Gregory, 224 Dorchester Ave., Cincinnati, O..1902
Smith, Mrs. E. G., 349 Broad St., Bridgeport, Conn.....1883
Smith, H. C., Florence, Neb.....1904
Smith, J. D. Stevenson, 67 Gilbert St., Bridgeport, Conn..1883
Smith, J. M. T., Poplar Bluff, Mo.....1904
Smith, R. T. L., Russellville, Ark.....1904
Smith, T. D., Bremen, Ind.....1903
Smith, Wm. A., 1420 N. 19th St., St. Louis, Mo.....1902
Snapp, George U., Cottage Grove, Ore.....1896
Snowdon, J. H., Center Ridge, Ark.....1903
Snyder, George, Weston, W. Va.....1897
Snyder, J. H., Cameron, Mo.....1886
Snyder, W. M., Jackson, Mich.....1903
Solomon, J. C., Los Angeles, Cal.....1904
Son, J. F., Ardmore, Ind. Ter.....1904
Spencer, J. R., 952 W. 8th St., Cincinnati, Ohio.....1895
Spindel, E. S., Springfield, Ill.....1903
Standlee, C. E., Drewsey, Ore.....1901
Stephens, Albert F., 2300 University St., St. Louis, Mo....1901
Stevens, J. V., Jefferson, Wis.....1902
Stevenson, E. H., Fort Smith, Ark.....1886

Stewart, J. S., Hastings, Neb.....1903
Stoller, S. V., Hamilton, Mo.....1885
Stouffer, P. J., 1205 Grand Ave., Pittsburg, Pa.....1901
STRATFORD, HENRY K., *ex.*, Austin, Ill.....1870
Stringham, Bryant, Bountiful, Utah 1894
Strouse, Lee, 25 E. 4th St., Covington, Ky.....1898
Sutton, J. G., Rushsylvania, Ohio.....1903
Swepston, G. M., McArthur, Ohio.....1897

Tatman, Pearl Hale, Eureka Springs, Ark.....1904
Taylor, A. P., 6th Ave. and N. High St., Columbus, Ohio..1899
Taylor, J. L., West Plains, Ky.....1901
Taylor, J. T., 113 S. 7th St., E., Salt Lake City, Utah.....1892
Teague, A. E., 116 Senate Ave., N. Indianapolis, Ind.....1903
Terrell, C. A., 1562 Broadway, New York City.....1903
Theil, J. W., St. Bernard, Ohio.....1904
THOMAS, R. L., 792 E. McMillan St., Cincinnati, Ohio.....1893
Thomason, T. L., 614 Austell Building, Atlanta, Ga.....1903
Thompson, Geo. W., 142 E. 30th St., New York City.....1899
Tibballs, J. W., Grange, Ark.....1904
Tiel, Arthur R., Matteawan, N. Y.....1896
Tompkins, A. W., 2 W. 12th St., New York City.....1900
Trowbridge, Edward G., 103 State St., Chicago, Ill.....1901
Truax, Florence T., Tallapoosa, Ga.....1900
Truax, H. E., Tallapoosa, Ga.....1903
Tucker, H. S., 126 State St., Chicago, Ill.....1899
Turner, D. J., Cheney, Wash.....1891
Turner, H. S., Pomona, Cal.....1904
Turner, Thomas S., Lebanon, Ind.....1899
Turner, W. S., Waynesfield, Ohio.....1893
Twitchell, B. E., Belleville, Ill.....1904
Twitchell, R. A., E. St. Louis, Ill.....1904

Unger, C. W., 106½ S. Broadway, Los Angeles, Cal.....1896
Upshaw, Ida W., 5015 Shaw Ave., St. Louis, Mo.....1903

Vick, W. B., Green Hill, Ind.....1899
Vincent, A. W., Valparaiso, Ind.....1898
Von Lackum, H. J., Dysart, Iowa.....1887

Waddington, J. E. G., 1024 Warren Ave., W. Detroit, Mich.1902
Waite, H. E., New York, N. Y. 1904

Waldron, M. H., Fairfax, W. Va.....1904
Walker, A. E., Union, Neb.....1901
Washburn, Geo. W., Star City, Ind.....1903
Watkins, A. C., Jennings, La.....1904
Watkins, Lyman, Blanchester, Ohio.....1899
Watson, J. E., Otterville, Ill.....1904
Webster, H. T., 1010½ Washington St., Oakland, Cal.....1888
Welbourn, O. C., Grant Building, Los Angeles, Cal.....1904
Wells, J. M., Vanceburg, Ky.....1901
Welty, S. F., Hicksville, Ohio.....1898
Werner, W. L., Thomas, W. Va.....1904
Wheat, W. W., Mecca, Ind.....1903
White, J. H., Mt. Ayr, Iowa.....1903
White, J. Newton, Queen City, Texas.....1900
White, J. W., West Alexander, Pa.....1904
White, Miranda C., 61 West Ave., Rochester, N. Y.....1888
White, William A., Leipsic, Ohio.....1901
Whitford, E. P., Westboro, Mo.....1898
Whitford, H. E., 63d and Stewart Ave., Chicago, Ill.....1902
Whitford, H. K., 228 Chicago St., Elgin, Ill.....1870
Whitford, Susan K., 210 Dundee St., Elgin, Ill.....1892
Whitney, I. J., 26 Main St., Unadilla, N. Y.....1896
Widener, A. Jackson, cor. 5th and Main Sts., Little Rock, Arkansas 1903
Wight, Eli, 853 Warren Ave., Chicago, Ill.....1890
Wilder, Alexander, 5 N. 11th St., Newark, N. J. *ex*.....1870
Wiley, E. D., 302 W. Walnut St., Des Moines, Iowa.....1892
Wilkins, A. C., Jennings, La.....1904
Williams, F. O., 196 E. Long St., Columbus, Ohio.....1899
Wilmeth, F. L., 121 S. 14th St., Lincoln, Neb.....1900
Wilson, C. N., Maysville, Ga.....1891
Wilson, J. W. Chicago, Ill.....1904
Winter, G. G., 118 E. Pennsylvania St., Shelbyville, Ind...1899
Winter, C. G., Indianapolis, Ind.....1902
Wintermute, R. C., 129 W. 7th St., Cincinnati, Ohio.....1895
Witt, Stephen, North Dana, Mass.....1896
Witte, J. A., Moody, Texas.....1904
Wohlgemuth, Henry, 703 S. 8th St., Springfield, Ill., *ex*....1870
Wolfe, E. A., Dennison, Ohio 1899
Woodward, A. B., Tunkhannock, Pa., *ex*.....1874
Wottring, Louis C., Prospect, Ohio.....1899
Wright, E. M., Warsaw, Ohio.....1904

Wyatt-Hannath, W. H., Roselle, N. J.....1900
Wyman, W. A., 212½ 16th St., Cheyenne, Wyo.....1896

Yancey, J. M., Russellville, Ark.....1901
Yoemans, J. F., Wichita, Kan.....1904
Youmans, William G., Cedar Bluffs, Iowa.....1899
Young, Alsey B., Brownsville, Tenn.....1900
Younkin, Edwin, Villa Ridge, Mo.....1878
Yost, Lucien N., 400 Locust Ave., Fairmont, W. Va.....1897

Deceased Members.

Names and Residences at Death.	Year of Death.
Acomb, James L., Tideout, Pa	1901
Adams, Wm. L., Hagardville, Conn	1901
Allen, Paul W., New York, N. Y	1880
Antle, F. P., Petersburg, Ill	1890
Anton, James, Lebanon, Ohio	1897
Armgardt, Henry, Brooklyn, N. Y	1901
Baines O. O., Chicago, Ill	1896
Barber, Martin N., Watertown, Wis	1893
Bates, David, Bonham, Texas	1896
Beam, Lemon T., Johnstown, Pa	1889
Beam, William C., Johnstown, Pa	1889
Biggers, S. T., Atlanta, Ga	1902
Bell, J. Harvey, New York	1901
Blakely, Thomas, Jones, Mich	1888
Borden, Lafever H., Paterson, N. J	1887
Boskowitz, Herman, Brooklyn, N. Y	1882
Bowlsby, J., New York	1902
Bricker, William, Wabash, Ind	1901
Brigham, L. B., Aurora, Ill	1893
Brockway, Theodore, Youngstown, Ohio	1900
Brothers, Isaiah, Youngstown, Ohio	1904
Buckland, W. O., Oakland, Cal	1903
Bundy, John H., Oakland, Cal	1881
Burroughs, George M., Bridgeport, Conn	1898
Burton, Rollin J., Albany, N. Y	1873
Butcher, J. C., Urbana, Ohio	1902
Buxton, H. W., Worcester, Mass	1882
Caiger, A. E., Boston, Mass	1895
Cate, J. L. T., Coldwater, Miss	1903
Clark, Samuel, Lawrence, Ill	1893
Colvin, W. H., Irving Park, Chicago	1904
Conklin, Amariah, Manchester, Mich	1892
Corey, John A., Florence, Ky	1889
Covert, George, Clinton, Wis	1902

Covington, Henry, Pleasantville, Iowa.....1875
CURRYER, W. F., Indianapolis, Ind.....1902

Dale, George W., Iola, Wis.....1901
Darman, William, Philadelphia, Pa.....1887
Davison, A. L., Weiser, Idaho.....1897
Day, L., Monroe, N. Y. 1901
DeCrow, Herbert, Newark, Ohio.....1900
Delbridge, George H., Atlanta, Ga.....1899
Denman, J. R., Charleston, Ill.....1878
Douglass, David D., Port Leyden, N. Y.....1899

Feather, Ira C., Sandy Lake, Pa.....1888
Firth, Horatio E., Brooklyn, N. Y.....1883
Forster, Andrew P., Fort Scott, Kan.....1889
Fraser, Thomas R., Pictou, N. S.....1882
Frazee, Lewis, Perryville, Ind.....1882

Gamble, William J., Mosiertown, Pa.....1888
Geddes, Robert W., Winchendon, Mass.....1886
Gibbs, Aaron L., Hope, N. J.....1884
Goetchius, L. O., Saratoga Springs.....1901
Goss, I. J. M., Marietta, Ga.....1896
Granger, Thomas A., New York City.....1880
Green, H. H., Atlanta, Ga.....1897
Gregory, John L., New York City.....z.....1882
Grinnell, John L., Peabody, Kan.....1892

Hamilton, J. W., San Francisco, Cal.....1904
Hamilton, Robert, Saratoga Springs, N. Y.....1894
Harney, Cambell H., Waupun, Wis.....1888
Harris, Thomas L., Cazenova, N. Y.....1891
Hatch, William Collins, New Sharon, Me.....1902
Hausen, Christian, Oakland, Cal.....1882
Hayden, Wm. R., Bedford Springs, Mass.....1903
Hector, Cornelius, Rochester, Fulton County, Ind.....1896
Hobson, William H., Irving, Ill.....1890
Hodgkins, N. Dwight, Rocky Hill, Conn.....1884
Hooper, Marvin S., Burlington, Iowa.....1896
Hopkins, Charles C., Evans' Mill, N. Y.....1884
HOWE, ANDREW J., Cincinnati, Ohio.....1892
Howe, Julia R., Chicago, Ill.....1898

Huckabee, J. W., Atlanta, Ga.....1903
Hulbert, Joel C., Rochester, N. Y.....1891
Hull, George E., Carthage, N. Y.....1885

INGALLS, WALTER M., Amelia, Ohio.....1879
Ingham, Henry, Bellows Falls, Vt.....1889
Ingraham, S. W., Chicago, Ill.....1891

Jilson, Harvey D., Fitchburg, Mass.....1878
Johnson, Ira T., Orange, Mass.....1888
Johnson, J. R., Cotton Gin, Texas.....1897
Johnson, John G., Wellfleet, Mass.....1896
Johnson, John H., New York City.....1874
JOHNSON, JOHN WESLEY, Hartford, Conn.....1872
JUDD, SAMUEL S., Janesville, Wis.....1887

Kenney, Moses B., Lawrence, Mass.....1881
Kermott, John W., Detroit, Mich.....1882
King, G. W., King's Station, N. Y.....1902
KING, JOHN, North Bend Ohio.....1893
Kirkpatrick, George, La Harpe, Ill.....1898

LATTA, W. S., Lincoln, Neb.....1901
Linquist, Charles F., New Haven, Conn.....1889
Locke, F. J., Newport, Ky.....1903
Lounsberry, Charles F., Nevarino, N. Y.....1884

Mallory, M. B., Los Gatos, Cal.....1899
Marmon, John W., Mitchellville, Iowa.....1876
Martin, W. C. E., Greenville, Pa.....1885
Mason, John D., Boston, Mass.....1892
McKee, David B., Hutchinson, Kan.....1903
McLeary, Matthew, Boston, Mass.....1892
McMullen, William, Burlington, Kan.....1891
McMurtrey, J. N., Salem, Mo.....1897
Merkel, Gottfried H., Boston, Mass.....1893
Miles, Mason M., Aurora, Ill.....1893
Morehardt, F. L., New York, N. Y.....1903
Murphy, J. J., Salt Lake City, Utah.....1894

Newton, Edgar Orrin, Hot Springs, Ark.....1877
Newton, Robert Stafford, New York City.....1881

Nicolay, William J., Minier, Ill.....1896
Nims, William W., Syracuse, N. Y.....1896

Owen, Reuben H., Haverstraw, N. Y.....1883

Palmer, N., Brooklyn, N. Y.....1876
Parr, John, New Boston, Mich.....1889
Phelps, Mrs. L. J., Syracuse, N. Y.....1895
Pickerell, George W., Indianapolis, Ind.....1895
Pierce, C. E., Little Rock, Ark.....1903
Piper, Henry Beam, Tyrone, Pa.....1895
Potter, A., Springfield, Ohio.....1885
Potter, Stephen H., Hamilton, Ohio.....1883
Povall, Henry, Mount Morris, N. Y.....1892
Prentiss, M. M., Rushville, Ill.....1883
Purdie, A. J. N., Otselic, N. Y.....1890

Randall, L., New York.....1902
Robinson, Morton, Newark, N. J.....1893
Roche, David F., Boston, Mass.....1892
Rolphe, Stephen M., Belle Plaine, Kan.....1885
Rosenberg, J. H., Osage City, Kan.....1889
Rush, Alfred B., German, Ohio.....1885

Sandmeister, Charles, Bellevue, Ohio.....1888
Sax, Austin J., Americus, Kan.....1887
Schlabaum, John C., San Francisco, Cal.....1902
Schmitt, Joseph A., Belleville, Ill.....1893
SCUDDER, JOHN M., Cincinnati, Ohio.....1893
Shaw, Edward M., Allen, Mich.....1882
Sherwood, Augustus C., San Diego, Cal.....1886
Simmons, Thomas, Hartford, Conn.....1894
Smith, Dennis F., Brooklyn, N. Y.....1884
Spencer, Horace, Plainfield, Ill.....1900
Springsteen, Albert G., Cleveland, Ohio.....1882
STANDLEE, E. LEE, St. Louis, Mo.....1902
Stanton, Lyman, Copenhagen, N. Y.....1870
Stillman, Asa G., Troy, N. Y.....1884
STOW, BENJAMIN JONES, Brooklyn, N. Y.....1888

Taft, Simon, Newark, N. J.....1889
Thompson, Alexander, Meadville, Pa.....1885

Thompson, C. D., Oil City, Pa.....1891
Tiesler, Eugene, Orange, N. J.....1893
Trask, R. S., Hastings, Mich.....1904

Vail, Albert H., Carlstadt, Cal.....1893
Van Riper, J. A., Shaftsburg, Mich.....1900

Waller, W. D., Columbia, Conn.....1896
Wares, Abel, Haverhill, Mass.....1897
West, H. D., Southbridge, Mass.....1899
Westcott, Austin B., Chicago, Ill.....1891
Williams, Daniel Bullard, Opelika, Ala.....1890
WILLIAMS, DAVID, Columbus, Ohio.....1902
Williams, John W. R., Opelika, Ala.....1894
Williamson, E. J., St. Louis, Mo.....1895
Winans, Robert, Benton Harbor, Mich.....1883
Wood, Alfred A., Jefferson, N. Y.....1875
Wood, Almon, Durhamville, N. Y.....1882
Wright, C. E. M., Gilman, Ill.....1900
Wright, S. B., Lane, Kan.....1884
Wright, William R., Bath, Me.....1887

YEAGLEY, BENJAMIN L., Johnstown, Pa.....1895
Yeagley, Henry L., Lancaster, Pa.....1902
Yost, P. D., St. Louis, Mo.....1883

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